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The American Journal of Clinical Medicine

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VOL. 14 JANUARY, 1907 NO. 1

"Those friends thou hast, and their adoption tried, Grapple them to thy soul with hoops of steel."

What would life be without friends? We know that to ours we owe nearly everything—not only the warm personal ties which make life worth while, but the marvelous growth of our business, the development of our journal, yours and ours, and the broadening and deepening current of optimistic therapeutic thought, which this journal seeks to promote and perpetuate. And so, in this season of "peace and good will" we grasp hands in spirit with all the brethren of the "Clinic family."

In return for your help we shall endeavor to give you something more than the good wishes of the Holiday Season, as warmly as we feel and seek to express these. We shall give you the best of heart and brain—hard work, clean work. "Let no pleasure tempt thee," said Franklin, "no profit allure thee, no ambition corrupt thee, no example sway thee, no persuasion move thee, to do anything which thou knowest to be evil; so shalt thou live always jollily, for a good conscience is a continual Christmas." That spirit we try to put into Clinical Medicine; and this we leave with you for the New Year. May it be a Happy and a Prosperous one!

The purpose of Clinical Medicine is to give practical help and to promote the spirit of mutual helpfulness. If it is new to you may we not have your subscription? If you are a regular reader won't you pass the word along? A new subscriber from your effort would be a much-appreciated support. Price per year, $1.50; see second page of cover. Until January 15th, $1.00; see special "Last-Chance" insert.

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LOOKING FORWARD

AS the years roll around we wonder at times concerning the future—not this year or next, but those long vistas which rise dimly enough ahead now—when others shall take up and carry forward the great work which we have but just commenced. What of our work then? Will it live?

We have faith to believe that it will live—a glowing faith founded upon the certainty of the truth of the principles for which we contend, and upon our confidence in manhood. Perhaps we put the man first. After all, principles are dead, lifeless things, powerless for good or for evil, unless behind them there stands some warm, pulsating, devoted human personality. Let the strong man arise, one who will put intelligence, industry, energy and unceasing faith into these principles and they become great world-moving forces.

Our work has in it the very essence of permanency. It is founded upon great and changeless truths, vital to the future success and growth of therapeutics. In these days of moral analysis there is a passion for truth. Men want to get beneath the surface to the right and wrong of things. To that feeling, which after all is found to greater or less degree in every man, we ascribe the marvelous growth of the alkaloidal propaganda. We instinctively hate shams. That is why so many of our best men have lost faith in galenic practice. The old remedies have been found variable, unreliable, confusing. They were shams. The doctor finds that he can depend upon the active principles. They are true.

The need, therefore, is for men. We appeal to you to carry forward the great therapeutic movement which means so much to us and to those who shall follow. The movement needs men with red blood, strong human sympathies, who shall feel, as we feel, that while it is a really scientific work, it is more—a great humanitarian plan for the alleviation of the ills of our kind.

If there is one thing more than another which we have tried to preach and teach it is optimism—faith in the doctor and the doctor's mission; faith that the doctor has a work in the world and that this work is going to grow greater and his influence increase; faith in the doctor's ability to not only alleviate but to cure disease, and that this ability is going to increase as knowledge increases; faith in the doctor as a man, with professional interests and sympathies which shall constantly bind us closer together and ultimately break down the barriers of sect. And we have this optimistic feeling because we feel that active-principle practice has within itself the germ which shall bring all these things to pass.

We want to make every reader of this paper such an optimist—to help us pass

this spirit along, until it shall be undying. We want to make every one of you as much enthusiasts as we are. But to be an enthusiast means to be a worker. Will you work with us to this end, during this year and the years that are to follow? Will you help us to make this thing *live?*

Then welcome each rebuff
That turns earth's smoothness rough,
Each sting that bids nor sit nor stand but go!
Be our joys three parts pain!
Strive, and hold cheap the strain!
Learn, nor account the pang; dare,
Never grudge the throe!

—Robert Browning.

MEDICAL INEFFICIENCY.

In the *St. Louis Medical Review* for Nov. 24, is an article by John B. Roberts, entitled "Some Causes of Inefficiency in Medical Practice." John is a surgeon and never has been any other sort of a doctor, and there are a very few things he may not know about the topic he discusses; but it may be worth our while to hear him.

His first fault is the lack of equipment for prompt service, and he enumerates here "a clinical thermometer, hypodermic syringe, lead pencil, pocket case of instruments and a few powerful medicinal tablets." He evidently meant a pocket case of alkaloidal granules—and we heartily agree.

Next he cites "carelessness of observation," and here he places his finger on the sore. If there is any one thing above all others we need it is more care in observing the phenomena presented by the patient, as coming from the disease and from the medicines taken. This is one of the heavy heritages of woe entailed on us by the prescription.

Next he mentions indefiniteness in giving orders; then want of self-confidence and tact. These are directly derived from the use of uncertain remedies. We can not say exactly what to expect when there is no exact expectation to be foretold.

The failure to appreciate the value of common remedies may be ascribed to that failure of fixation in the subconsciousness we have elsewhere charged against the laws of hygiene in general. Nobody contradicts them, and nobody feels them.

Dr. Roberts next adverts to the use of insufficient doses of medicine; and here we are also in full accord with him. He believes in drugs when drugs are needed, and in efficient doses. "Nothing seems so fatuous as playing with drugs in insufficient doses." "When one desires to divide skin and muscle one needs a knife that will cut. So also when one needs a drug, it must be pure, it must have power. The physician must know not only what he is giving, but how much. Besides this, he must have courage to give enough." He mentions chloral, bromide, iodide, codeine, mercury and hyoscine as drugs given in insufficient doses.

"The employment of drugs in medical practice should resemble the resort to surgery. The guiding principle should be: 'No drugs and no surgery, unless necessary; when necessary, effective drugs and effective surgery.' "

Sounds sorter familiar, doesn't it? And yet he is not on the roll of this journal. But even when they start from widely different points men who steadily pursue the truth must meet sooner or later.

SAFE HYPODERMIC ANESTHESIA.

From all sides come reports attesting the remarkable efficacy of the new method of securing surgical anesthesia with "hyoscine, morphine and cactin comp., Abbott." The surgeons are taking it up with something akin to enthusiasm. The writer had recently the opportunity of witnessing three serious operations performed under this anesthesia. One was for appendicitis. This patient had two injections of one tablet each, two hours apart. After the last one the attendant came to report nervously that the respiration had fallen to six per minute! The surgeon got up leisurely and remarked that the patient was about ready for the operation, and without concern proceeded with the work. No nausea, no assistant to see to the anes-

thetic, no unrest, bronchitis nor nephritis, but perfect anesthesia for hours, allowing plenty of time for careful work, with hours of quiet sleep thereafter. Surely this is pretty close to the ideal.

Several physicians have reported similar ideal results from this combination in obstetric cases. Smaller doses, however, are used (half size) and care should be taken not to begin too early. This combination is also the best we possess for false pains and pending miscarriage, especially from excess of fetal activity.

Many reports coming in indicate that the profession is applying this anesthetic combination in a wide range of other pointed cases. Several have testified to its superior efficacy in relieving the atrocious pangs of hepatic and renal colic, where it leaves the old morphine-atropine combination hopelessly in the rear. A few doses may also well be used to produce sleep in morphine cases, while the regular dope is being gradually reduced. This will probably prove efficient and safer than hyoscine alone. It is now an established fact that hyoscine, when chemically pure, is not therapeutically identical with scopolamine as some have claimed. Results unqualified disprove their assertion. The triumph of this anesthetic, "hyoscine, morphine and cactin compound," is again a triumph for chemical purity and definiteness of drug application.

What the world needs more than anything else is sympathy—sympathy between man and man, sympathy between class and class, sympathy between nation and nation.—W. J. BRYAN.

THRESHING OLD STRAW.

The necessity of a therapeutic reform is beginning to be felt by the profession at large, as is evidenced by the frequency of references to such topics as the Oslerian nihilism, etc. The first step is of course to awake men's minds to the needs, the next will be the consideration of ways and means. Curious, how men will continue to think along accustomed lines until rudely aroused to a sense of the changed conditions, and the necessity for new means and methods of meeting them.

In the *Monitor* for September the editor recognizes and deplores the deficiency in therapeutics. His diagnosis of the cause is correct—the neglect of the teachers of this department; but in his prescription for the indication he falls down. He advises more attention to be paid to "prescription writing." Why not begin with a more thorough study of the properties and effects of the drugs the doctor is to prescribe? Let the student learn the exact powers residing in each drug, its effects in health and its application in disease; and if he realizes exactly what the drug will do, he will know when to exhibit it with beneficial effect. There's nothing mysterious here—if he knows that the sulphocarbolates stop gastric fermentation, and his teacher of practice instructs him to recognize gastric fermentation, he can give the drug till observation of his case shows him the fermentation has ceased, and then quit. The method is simplicity itself.

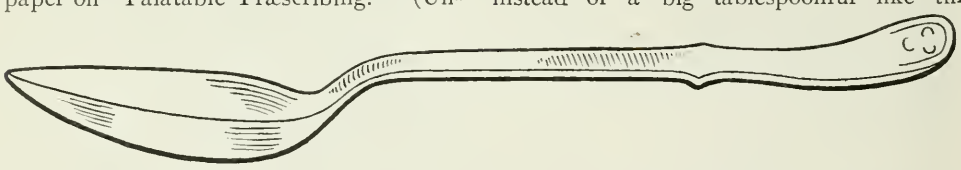
The number of similar simple and easily recognizable and comprehensible pathologic conditions is great; the fitting of remedies thereto correspondingly easy. Possibly two or even five per cent of the cases coming under observation are more complicated and require close and continued investigation. For purposes of scientific study and classification the most scientific laboratory investigations are necessary, but the experience of years enables the practician to do without these in most cases, where he has not the time and the patient has not the means to pay for them. We do not have to say the multiplication table every time we calculate the price of a beefsteak. The distinction between the routine requisite for controversial and statistical work and that of the everyday practician is generally ignored. To be sure a Widal is a good thing to make, but we can not wait for its verdict before commencing our treatment. The naming and classification of an attack of illness are important, but its successful treatment is more so;

and the latter may be secured without the former, in many instances.

Why should the young doctor be expected to construct a prescription? He may see only a clear indication for one remedy —why feel compelled to combine a number? If he sees reasons for giving two, he may administer them alternately, or together, and in the latter case he must consider their chemic and physiologic compatibility. If more than two are needed at once, he is assuming a perilous task in watching for indications of the desirable action of each, and the moment for stopping, or lessening the doses. He is assuredly a master of therapeutics who can study the operations of the disease, and those of six different drugs at the same time, in one patient. The multiplication of drugs in a single case is always an indication of uncertainty in diagnosis and therapy, adds to the danger, and prevents the physician forming any clear conception of his case and the effects of his intervention.

Another of these straws is found in the New York—or is it Amsterdam?—*Medical Journal*, Sept. 15, whose erudite edior descends from his garret of obsolete words and obsolescent etymologies to welcome a paper on "Palatable Præscribing." (Unfortunately our monotypes do not permit us to put this in blackletter.) The author's advice to give quinine in raw white of egg may win him forgiveness for the crime of disguising pepsin with wine, or iodides with sarsaparilla. We may admit that salicylates may be effectually disguised by adding nux vomica, though we would scarcely term that "palatable" prescribing. We heartily endorse the following statements: "The extracts and alkaloids should at all times be preferred to tinctures, infusions or decoctions. Thank heaven! the times have passed when the greatness of the physician stood in direct ratio to the great quantity of medicine he prescribed!" But we can not endorse the next sentence, which recommends the ammonias as quick, agreeable and efficient circulatory and respiratory stimulants. Nor can we sanction the use of that variable and dangerous preparation, bitter almond water, as an excipient for children's medicines. Do we have to give bismuth, chalk mixture, glycerin, acacia syrup and mint water, if we want the effect of an astringent in pleasant form? Or must we go back to compound syrup of squills, paregoric, anisated solution of ammonia, wine of ipecac, syrup of senega, tincture of cubebs, glycyrrhiza, tolu, wild cherry and creosote for expectorants?

There is not much that is objectionable in the naked active principles; when enveloped in the slowly solvent milk sugar they are generally swallowed without taste; and if dissolved in a spoonful of hot or cold water there is so little of the dose and so little taste that few children will object. It is the useless, encumbering, bulky, unsightly dirt that renders the older doses so unpleasant, not the really useful elements of the drugs. Give a granule like this



instead of a big tablespoonful like this

and neither fastidious lady nor spoiled child will consider the former worth objecting to.

THE FENCE MEDICAL.

When the writer entered the medical profession years ago he was quickly confronted by a fence, and such a fence! The posts were deeply rooted in the soil of prejudice; the wires so close together that it seemed not even a mouse could crawl through, and thickly hung with barbs envenomed with sectarian hatred. It was a lofty fence too, too high to be climbed.

How about the fence now? It presents quite a different aspect. The posts have rotted away, the kindly rain from heaven has washed the poison from the barbs, and the "kids" have twisted them off to point their arrows with which to shoot sparrows; the wires have rusted until one wonders what holds the old fence up. But here and there along its course we see some old men standing by, some smelling rather strongly of herbs, others of iodoform, still others (shall we say it?) of moonshine, and it is really not very clear whether they are holding up the fence or the fence is supporting them.

What is to be done with it? Must the old fence still stand now that the gaps in it are so large that its office, if it ever had one, is gone. Now and then, on either side of the fence we have seen someone to whom our hearts have gone out in recognition of fraternity, some Cooper, Lloyd or Ellingwood, some Hills, Halbert, Kraft, or Shedd, and when we have impulsively reached out our hands in brotherly kindness to grasp theirs, we have forgotten all about the fence, and so far as we were concerned, it had ceased to exist.

If we do our part the old fence will go. As one of our dear friends, a homeopath—though one in name only—says: "The next thing to do is to convince the 'sectarians' that they need not to continue to exist as sects, and to do this we must show them that their rights will be respected, and that they will be upheld in selecting medicine upon any ground they think right and proper. On the other hand the 'sectarians' ought to be willing to do away entirely with party names and to be known simply as physicians." And a little further in this letter he says: "The time is about ripe for the A. M. A. to take a great step, one that will thrill the heart of humanitarians the world over."

We appeal to our fellows of the dominant school to finish the old fence. The work of destruction is well under way, and our medical societies, following in line with the liberalizing tendencies of our great Association, are tearing out whole sections of it all over the country. Let us rise in our might, on both sides, and "get together."

Let the A. M. A. take that great final step.

Medicine appropriates everything from every source that can be of the slightest use to anybody who is ailing in any way, or like to be ailing from any cause. It learned from a monk how to use antimony, from a Jesuit how to cure agues, from a friar how to cut for stone, from a soldier how to treat gout, from a sailor how to keep off scurvy, from a postmaster how to sound the Eustachian tube, from a dairy-maid how to prevent small-pox, and from an old market-woman how to catch the itch insect. It borrowed acupuncture and the moxa from the Japanese heathen, and was taught the use of lobelia by the American savage. It stands ready today to accept anything from any theorist, from any empiric who can make out a good case for his discovery or his remedy.—O. W. HOLMES.

WORK! FOR EACH A SHARE.

Two old doctors were discussing matters, when one remarked that he was "too old to utilize the newer methods, or to learn his profession over again". He went on to bewail the passing of youth and, as an inevitable consequence, of the pleasures of life. His friend looked at him a moment with twinkling eyes and asked: "Would you be willing to return to twenty and be the d——d fool you were at that age?" The other thought a minute, and then broke into a hearty laugh as he responded, "Not by a darned sight!"

Age also has its compensations. The appetites are dulled, but the good things of life are easier to get, and we know so many more of them. Our relish for our tried old friends increases, we enjoy a good book so much more, and the cosy chair and soft slippers before the glowing fireside are so comfortable. What a pleasure it is to see things grow, whether it be bulbs or grandchildren. Formerly we hadn't patience to wait for such things. How many pleasant memories we have to look back over now. How little we worry over things that some years ago would have prevented sleep. How many times we now avoid the mistakes we then made. What a lot of trouble we would have kept out of if we had had our present knowledge and wisdom.

Just see that bullheaded fellow butting his skull against that stone wall—why, I verily believe that dark stain on it is from our own head when we were about his age—say, now, isn't experience, that leaves knowledge, worth something?

It required some years of hard work to collect the widely scattered materials for the volume of "Alkaloidal Therapeutics," and yet we are painfully aware that it is far from complete. The work on every page is fertile with suggestions not yet put to full and complete clinical proof, pregnant investigations that stop short, and studies that have been rendered imperfect by the advances in collateral sciences. We would feel tempted to give up when we see what a boundless ocean of labor there is to take up before the science of drugs and their applications is placed on a permanent basis. We would despair of accomplishing anything complete in the fragment of active life remaining to us; but that's not the way progress is made. We'll just do our level best and hope that those that follow us will do better.

While we, any or all of us, may think of a thousand things in a moment, we are called upon to do but one. While the whole mass of work is oppressive in its vastness we are only one little atom in the ocean of humanity, and have but to do our share. There are plenty of other workers, and they must shoulder the responsibility of their full quota of duty. What pertains to each one of us is to see that we each do our own share and leave none of it for some one else already staggering under his own load. Perhaps someone may be blessed with a trace more of brains, or health, or opportunity, or resources of other kinds, then the duty devolves upon him of doing a larger share. It seems on the whole safer to conclude that we shall each do all we possibly can do, in the very best manner of which we are capable, to keep our account well along on the credit side.

In the textbooks on Therapeutics and Practice (soon to be issued), resulting from our active-principle work, you will find the framework of a gigantic system. They teach the direct application of drugs of well-known action to pathologic conditions correspondingly well recognized. They seek thus to do away with doubt and uncertainty and give to the application of drug-remedies the precision of the mechanic arts. It is a gigantic work, far beyond the capacities of any man, but well within the reach of fifty thousand men.

How can we induce our readers, each of them, to take upon themselves their fair share of this duty? Take these two books, and read them until you come to a point that you see you are able to tackle a tangle you can unravel, an obscurity you can help to dissipate, a suggestion you can put to the test of practice. Make your observations carefully, keep accurate records, and keep at the subject until you feel justified in publishing your conclusions and the evidence supporting them. There is nothing in this beyond the capacity of any man who has earned a diploma as a doctor in medicine. There are no opportunities needed that are not within the reach of any man who has one patient. Nothing more is asked than every physician should do without being urged—observe his case, treat intelligently, and keep records.

Much of the work done along these lines is lost because it is done at random, and the individual observations are not corrected by comparison with those of others. It is our desire to collaborate and unify this work, thereby obtaining definite and fairly permanent conclusions from it—and we want your help.

"IS DISPENSING FOR THE ADVANTAGE OF THE PATIENT?"

At the last meeting of the American Medical Association a paper was read by Dr. M. H. Fussell, of Philadelphia, on "Dispensing versus Prescribing." This paper has now been published in the December 1st number of the Association *Journal*, and the subject may be considered as "open for discussion."

Dr. Fussell's paper, to which we had the pleasure of listening when given, is entirely one-sided. The average man may see *some* advantages in or at least some arguments in favor of dispensing by the physician. Dr. Fussell can see none—not one! He makes but one concession, and that is to the physician who is not "practising in proximity to a reputable pharmacist." As he puts it, "I can see no way at present for the country doctor to work except by dispensing."

He takes some care to separate the prescribing sheep from the dispensing goats; for he assumes that if the physician "has been carefully drilled in the principles of practice" he will become a drugstore prescriber; while if "he has been improperly taught" he suspects "he will soon fall into the habit of drug dispensing." His assumption that all who dispense (except country doctors who are so far from a drugstore that they cannot do otherwise) are numbskulls or vulgar "dollar chasers," would be laughable if it were not so transparently a case of special pleading purely in the interests of pharmacy, and having not an iota of demonstrable fact to back it up.

Why do doctors dispense? More and more are doing it. There must be at least *one* good reason. Is it not barely possible, despite Dr. Fussell's arguments, that there are *several* good reasons, which may appeal to able and honorable men? Let us analyze these arguments, see in just what they consist and test their validity.

Dr. Fussell rests his case upon his answers to the following questions:

"First: Is dispensing for the advantage of the patient?

"Second: Is dispensing to the pecuniary advantage of the physician who dispenses?"

"Third: What effect does dispensing have on the manner in which the physician conducts his cases?"

"Fourth: What effect has dispensing on legitimate pharmacy?"

This month we shall answer the first question and briefly review Dr. Fussell's position concerning it. The other questions will be taken up in later numbers of Clinical Medicine.

Simmered down Dr. Fussell's argument, to prove that dispensing is not for the advantage of the patient, is as follows: First, the dispensing doctor must use pellets, pills or ready-made mixtures or powders. These almost without exception are set formulæ, and set formulæ can not be adapted to the needs of individual patients. Second, "the infirmity of age overtakes almost all drugs kept in the stock of a dispensing physician and makes them prohibitive." Third, instead of dispensing being cheaper for the patient it is really more expensive, because he must pay for return visits by the physician if more medicine is needed (assuming that insult—that the dispensing doctor is a pill-peddler, neither knowing enough to or having honor enough to make visits when essential) instead (we assume) of getting the prescription refilled at the drugstore. And Dr. Fussell throws in at this point the remark that "a cheap doctor is usually a bad lot." Fourth, if the drug required is not at hand the doctor will substitute, and this practice "is properly decried in pharmacists and should be shunned by physicians."

Now *isn't* that absolutely convincing? We wonder how many patients would so consider it?

Now concerning his first point: It is not true that the dispensing physician "must" use pellets, pills, ready-made mixtures, etc. There were dispensing physicians long before these convenient forms of administration came into use and there are still many dispensing physicians who use them but little. Granules and tablets have grown in favor both with physicians and patients, not for one reason but for many, among them being accuracy of dosage, portability, convenience of administration, reduction to the minimum of odor and taste, and expense. Their use is by no means confined to the dispensing doctor. The most casual investigation of the pharmacist's shelves will show that he is well stocked with tablets

and pills, and as regards the ready-made mixtures, their multiplicity is the complaint of every druggist. It has been repeatedly shown that the majority of prescriptions contain one or more of these preparations. The prescribing physician uses them fully as much, if not more, than the dispensing physician.

It is not true that the physician who uses "pellets" or "pills" must use set formulæ. He has exactly the same latitude in this matter as the prescribing physician. Nor is it true that remedies of this class are "almost without exception set formulæ." An investigation of almost any manufacturer's price list will show that the number of single drugs, in various-sized doses enormously predominates over the "set formulæ." This journal, which some people seem to think the leading advocate of dispensing, has again and again urged upon physicians the use of the single remedy, given in each case to full physiological effect or remedial action. Now what is the position of the druggist and his organs and advocates? He urges the physician to use the preparations of the U. S. Pharmacopeia, and the National Formulary many of the former and nearly all of the latter being "set formulæ." Not one-half the doctors who prescribe can write the real basal formulas of 50 per cent of the remedies they use.

We agree with Dr. Fussell that the "set formula" is not always suited to the needs of individual patients. And we will go a step farther and add that it makes no difference whether this be the "antibilious pill," a proprietary nostrum, an official or semi-official "mistura" or "liquor," or some physician's "favorite prescription" which he gives over and over again with little or no variation to patients of the same class, and which the druggist finally "lifts" and translates into a full-fledged patent or proprietary. The great need for the physician, with the greatest good for his patients, is that he should test singly the action of every drug which he administers, and this he must do himself at the bedside—by no vicarious observation can he learn. In other words, the prescription fosters the set formula evil, instead of preventing it. The remedy for both prescriber and dispenser is the bed-side study of drug-action. Does the ever-ready prescription pad favor this—or the convenient single remedy?

Dr. Fussell's argument concerning "the infirmity of age" in the doctor's stock hardly deserves consideration. Do the druggist's supplies never grow old? Inspect the stock-bottles of the average druggist, look over his supply of pills, tablets, etc., and form your own opinion. This is no place for the pot to call the kettle black. Finally, the doctor's reputation depends upon the activity of the remedies he uses. Is he a fool—to give things which in his heart he must know to be inert, or worse? Is he a fool to desire to know what, just what, he is giving?

The third point, "that dispensing costs the patient more than prescribing" is weaker still. We may assume that the patient will only return to the physician, or as an alternative to the druggist, providing the medicine first given him failed to give expected relief. How are the individual needs of each case to be met by the physician when his patient sees him but once, and keeps coming to the drugstore for the refilling of a prescription whose usefulness has long since been outworn. Where is the economy in that? The saving to the patient consists in securing the speediest possible cure, and if the physician is one "worth while" he can only assure this through careful, frequent personal study. This is one of the great vices of the prescribing system: That it alienates the patient, who too often expects the prescription given him to prove a panacea, instead of a single link in a chain forged in careful study of his case. And, we would add, no case is too simple to deserve careful study. The mere first cost of medicine is not of great importance, though even here the advantage to the patient is immeasurably on the side of dispensing by the physician himself.

The fear that the doctor will "substitute" is really quite laughable. What does Dr. Fussell mean—that the physician will give somebody's "elixir" in place of some one's else "elixir?" It is true that the doctor may replace one remedy with another, for a variety of reasons; but when he does this himself he at least knows what he is giving—which he doesn't when the druggist does the substituting! You can depend upon it the doctor will always endeavor to meet the indications in each particular case; and this he can do as well as the druggist if his dispensing stock is at all adequate. It will not require an enormous number of remedies either.

* * *

So much for the negative. What positive reasons are there for the patient to favor dispensing by the physician. Or put it another way: Patients, as a rule, prefer to have the physician dispense—why?

The dispensing physician has his remedies at hand and can give them when most needed without the slightest loss of time. Hours of time are often lost in securing remedies from the drugstore, and these hours may make the difference between recovery and death, not only in acute cases but in chronic ones also. What physician has not had his prescriptions held up for hours at a time, for the druggist to get an ingredient which he has not in stock? Who has not experienced the delays due to distance, night, etc.?

Second, if the physician carries with him the remedies ordinarily needed, he can himself administer them to the patient and personally observe the results, or at least the action of the first doses. Even in cases which are not of extreme urgency this is important, since it enables the doctor to watch the results of his medication and guide himself thereby more intelligently. This increased attention is a great comfort to the patient, who realizes its value.

Third, if the doctor dispenses, most patients have more confidence that they are getting exactly what the doctor wants them to have. And this confidence is justified, for the responsibility is thrown directly upon the physician. He must see to it that his remedies are good, for his results, hence his reputation, will depend upon their efficiency and his skill in applying them. When he gives a prescription to the patient for the drugstore what assurance can he have that bargain-store goods are not used to fill it? It is beyond his control the moment it leaves his hand.

Fourth, when the doctor dispenses, the facts of the patient's illness are not peddled around the neighborhood. The patient may be and frequently is sensitive on this point.

Fifth, the expense to the patient undoubtedly is much less under dispensing. When, as in acute cases, it frequently is desirable to make changes daily in the strength of the remedies used, or to change them entirely, this can be done by the dispensing doctor at small expense; not so by the prescriber. Every change of medicine means a new prescription and this means added expense. The drug bill in an acute case runs into large figures. The dispensing physician can constantly vary his remedies, adding a little there or subtracting it here, every day or every hour if need be, to meet the changing indications, and not feel that he is loading his patient with an unnecessary financial burden. It is this flexibility that makes dispensing so attractive both to doctor and patient. The physician takes leave at once of the cast-iron rules of dosage and almost necessarily becomes a student of drug action—providing he applies the single-drug idea to his practice, as he should.

There are other points we might make, but we shall reserve them for other numbers, in which this discussion will be resumed.

Now—let it be understood right here: We are not fighting any honest druggist, nor objecting to the position of any doctor who prefers to prescribe: we can understand why many a physician will find such an arrangement entirely satisfactory. And we will add that a skilful, honest, straightforward phar-

macist deserves the support of our profession. If you have such an one in your community (and there are many) treat him "square." But we believe this is a matter in which the doctor must be the judge—absolutely. He is not to be turned aside by slurs concerning his motives or slanders concerning his abilities. Dispensing appeals to a constantly increasing number for the best reasons in the world—and some of these reasons we shall point out.

Brother, we are telling the truth as we see it; we are for the doctor every time when he is in the right, when injustice is done him and only then, and we want your counsel, your criticisms and your support. The above is a most important topic. Let your light shine. What do you think about it? Speak up, speak out; be frank and free. Because we say so doesn't make it so unless it's right.

This life's a hollow bubble,
Don't you know;
Just a painted bit of trouble,
Don't you know.
We come to earth to cwy,
We grow oldeh and we sigh,
Oldeh still and then we die,
Don't you know.

—Edward Vance Cook.

NURSES' SCHOOLS.

Quite a little interest has been aroused in the nurse's sorority by a paper in the *National Hospital Record*, entitled, "Some Things a Nurse does not Need to Know." The subject is too huge for our limited supply of gray matter, but we feel competent to tackle the cognate topic of what the fair lady should and must know. One writer enumerates her duties as consisting in the comprehension of her position and her relations to the doctor, patient and associates, the limitations of her responsibility and such management of the case as will best second the physicians' efforts. Is that all?

Coming down from the clouds of glittering generalities we would say that the nurse must absolutely learn to comprehend the effects to be obtained from medicines, and be ready to recognize promptly any aberration the case may take from the course which is expected. We may presume that the physician is prepared to tell the nurse what the natural course will be, how the symptoms will develop, if let alone; what he expects to do with his drugs and what symptom-modifications will occur from their action; and how she may know that the desirable effect has been secured, when she is to stop or continue in a modified manner the administration.

We cannot see that less than this should be expected of him. If he does this we will not hear of patients dying from unsuspected overdoses of strychnine, neither nurse nor doctor recognizing the departure from the normal course the case would have taken without this accident.

Obviously, this places upon the physician the obligation of studying his case until he knows what it is, and his drugs until he knows what they will do; and again we say, shouldn't he do this anyhow? What are hospitals for, if it be not to afford the physician opportunity for careful study of the case, such as is not afforded in the patient's home? If not, what does a patient pay for at a hospital?

Bluntly speaking, we say that the doctor must know what is the matter with his patient, and what his medicines are going to do. The former necessitates a knowledge of modern physiology and pathology, and a sufficient examination of his patient to satisfy him as to the nature of the disease. The latter requires the use of remedies of known and unvarying action, and their administration so as to exactly meet the needs as displayed by the patient's symptoms. It may be a drug or some one or more of the indirect therapeutic agents, a bath or a shock; but whatever it is, he must know what the result of its use will be, or he is not practising scientific medicine but merely "trying things."

The one essential duty of the nurses' school is to train the pupil in this department so that she may promptly report to the physician any phenomenon not down on the list, any unforseen or abnormal manifestation, that the physician may at once revise his conception of the case and act accord-

ing to the new light. All else is simply accessory; this is the one thing needful in her training.

How is it met by the schools? We have as yet detected no apparent effort to make this a part even of the curriculum. We suspect that the proper arrangement of the hair and the most fetching ways of wearing the cap are more studied.

No castle was ever built upon the rock that was not first seen in the clouds.—GEISTWEIT.

CRITICISE OR COMMEND.

Have you ever stopped to think how many different men contribute to the production of a single number of CLINICAL MEDICINE? Suppose you count them up. And this, after all, is but a fraction, for we receive many other articles and letters, many of them just as good as those we print—some of them perhaps better—which the limitations of our space prevent us from using. Considering all these, winnowing out those most suitable for our readers, preparing them for the press—all this means an enormous amount of work. And back of this lies the experiences—the successes and failures in practice—which render it possible for these men to put into concrete form these important and helpful facts. Do you appreciate these articles? Have they given you help? Do you approve or disapprove of the suggestions given? Then say so! Write to the authors—commend or criticize, as your own honest judgment inspires you to do. Not only will this be an encouragement to the author, but it will often help you, for many an interesting correspondence and warm personal friendship has been started in just this way.

Also, if you like the journal *tell us so;* also tell us if you see anything in it to criticize. We own up! We are just as susceptible to praise as the other fellow, and above everything else we are anxious to make CLINICAL MEDICINE better. We have made some changes this month. Tell us if you like them.

Write the advertisers. Find out what they have to sell. Investigate the merits of their goods. Try them if their claims seem to you to be supported by sufficient evidence. Many of the best things in medicine, the real success winners, can be dug out of the advertising pages. You will make a big mistake if you do not go after them.

The work of therapeutic reform is a tremendous one, one which may command the best energies of every man in the profession. Help us carry this burden; put your shoulder under your share. Commence now.

When it becomes a hoice whether you do a thing well or do it fast, do it well every time. Speed may be desirable, but accuracy is invaluable.—MEADER.

CHEMICAL PURITY.

Most physicians are satisfied with what may be termed medicinal purity in their drugs, rarely seeking true chemical purity. But it might be worth while to give a little attention to this matter if we are ever to get to a basis of science in our work with drugs.

In the *American Druggist* Baskerville treats of the rare earths used in medicine. He quotes Orlow as having found in medicinal cerium oxalate 60 per cent of didymium oxalate, while the examination of Boehm revealed 51 per cent Ce_2O_3, 24 per cent La_2O_3, 16 per cent Nd_2O_3, and 8 per cent Pr_2O_3, with traces of samarium and yttrium.

"Chemically pure cerium compounds have been offered to the *trade*, but rarely accepted, perhaps on account of their high price." Have they ever been offered to and refused by the medical profession?

At the best the designation "chemically pure" has got to be a mere trade term, like "saddle-rock" oysters, still used though there has not been an oyster on Saddle Rock for a generation or more; or "fresh eggs," which are, however, not "strictly fresh."

"Chemically pure" as a label on a package of drugs means that degree of purity that the purveyor deems sufficient to satisfy the scrutiny of the always careless doctor. However, if there is nothing in drugs, and any

old thing will do provided you jolly the patient along and see to the nursing, it doesn't matter.

SURGICAL PRESCRIPTIONS.

Our plea for a revival of interest in therapeutics seems to be arousing a widespread response. Sometimes the manner in which it strikes the individual seems a trifle peculiar. To some it seems to awaken a desire that more attention thall be paid to prescription writing. Why?

To us it seems rather desirable that before seeking to combine remedies the student shall learn the nature of single remedies and the effects to be obtained from them. The art of combining them may well wait until these necessary preliminaries have been attended to. But if we must have prescriptions let us begin with the department where they seem to be most wofully lacking, and suggest a few for our surgical brethren who do not appear to appreciate the beauties of polypharmacy sufficiently.

Take the forms of ferrum carbonatum employed by these gentlemen: We shall employ the vernacular, having no time to ascertain the classic denominations:

O Jupiter save us:—

Scalpel	No. 1
Lancet	1
Catlin	1
Amputating knife	1
Cartilage knife	1

Mix. Direct: Gather up in one hand, shut your eyes and turn your head away, then plunge the bunch into your patient and hope that one or the other may cut where the need exists—and again, to make sure—Jupiter save him!

O Jupiter save us:—
Silk
Linen
Silver
Catgut
Kangaroo tendon
Narwhal tendon
Silkworm gut, aa q. s.

Mix, and of the whole compose a ligature.

Since there is some difference of opinion as to the best material for ligatures we have here combined all the best known in one, and present it with confidence that the profession will obtain from the combination results far superior to any that may be derived from any single article in it.

O Jupiter save us:—
Corrosive sublimate
Phenol
Iodine
Bromine
Chlorine
Ol. terebinthinae
Acid sulphuric, aa q. s.

Mix. Direct: To be applied as a disinfectant and germicide.

Since we are uncertain as to the best agent for the purpose mentioned we have herein sought to combine all the best-known agents of this class, that the surgeon need not take the trouble to experiment, read or think, but can employ this for every purpose for which any agent of the class may be required. This will be a great saving of gray matter, and probably some distinguished professor will extend the applications of the combination so as to make its manufacture and sale exceedingly lucrative to some one.

It may be objected that these prescriptions combine incongruous and antagonistic materials, many chemically incompatible, but this is equally true of the great mass of medical formulas and has no special significance here. Also that the surgeon is in the habit of choosing in each case the best tools with which to do his work, the best ligature material for each specific purpose, the most appropriate antiseptic for each application; but we fail to see why he should enjoy and practise any such choice more than the strictly medical man. If his one cutting instrument is better in each emergency than any other, is not each remedy contained in the prescription better given alone when alone indicated than used in any other way? The objections are not well put. Reason, common sense, and experience all indicate the superiority of the active, accurate, concentrated, single remedy.

Now really, dear nihilist, what do you think about this?

THE TREATMENT OF ASTHMA.

In *The Clinique* for May 1906, Halbert contributed a paper on asthma.

We must learn to look beyond the pulmonary tract in viewing this malady. Many irritations besides those of the respiratory mucosa may incite attacks, and general conditions like the toxemia usually known as uricacidemia may underlie the malady. Defective elimination has its influence. Cardiac asthma dependent on cardiac neuroses is comprehensible, as are cases occurring with renal disease. Any toxemia, auto or hetero, may incite the paroxysms. Asthma will one day be known as incident to any one of many pathologic conditions.

The primary therapeutic indication is therefore etiologic. Diet is of importance—meat eaters of sedentary habits are apt to be asthmatic. Excesses of all sorts must be curbed. His best results in relieving the paroxysm have been from atropine hypodermatically every three hours. Aspidospermine is of value when the case has reached the stage of paralysis and emphysema, and the accessory respiratory muscles are called into play. The indicated remedy is most effective when given in the intervals, and should be selected with reference to the symptoms of the causal condition rather than the paroxysm. Aspidospermine cases have violent coughing attacks with cyanosis and expectoration of abundant asthmatic *perles*. For asclepidin the pulmonary structures rather than the bronchi are involved. Emetine corrects the gastric disorder. With lobelin the respiratory paralysis exceeds the gastric irritation and the prostration increases. Apomorphine pertains to more violent asthma and severer vomiting. Relief may be secured only from arsenic, which is rather for the paroxysms than the intervals. Copper arsenite is usually the best as it pertains to the gastrointestinal conditions. Aralia suits cases worse at night on lying down, severe spasmodic cough showing bronchial involvement. From camphor monobromide we may get benefit in cases where neurasthenic excitement precedes or accompanies the attack. Musk pertains to hysteria, strychnine to pneumogastric irritation. Epileptoid seizures demand glonoin. Hydrastin suits old, cachectic debilitates. In all cases individualization should direct.

Many more remedies are mentioned, and throughout, the treatment is directed at the conditions revealed by the study of each case instead of seeking a specific for "asthma" as a distinct entity. If this be homeopathy, then homeopathy has much to be said in its favor. But this is the duty of any physician of any school, and we cannot assent to the plea that it is any more the property of one sect than of the rest.

The only iodine mentioned is arsenic iodide, and we are not sure but this is the best of all for cases of asthma demanding iodine. But for the younger, and wherever there is an evident fragility of bloodvessels and other cellular structures, calx iodata seems too important to be neglected.

Beside such studies how crude and blind appear the long lists of remedies that have "cured asthma!" No attempt at differentiation, no guide in the selection, all that is said is that this remedy cured a case, and that was recommended by that authority. Small wonder that men got disgusted with drug therapy and threw it overboard.

We know nothing about the law of similia; we have not the slightest faith in infinitesimals, but if anybody wants to say we are leaning toward homeopathy because of our commendation of their close study of symptoms and endeavors to fit remedies thereto, we'll have to stand the opprobrium.

THE LIVER.

In the *Practitioner* for November, Woods Hutchinson gives his views on the functions of the liver. In his own happy style he alludes to the demolition of most of the ancient views as to its functions. A century ago it was shown that the liver possessed no active digestive or fermentative powers whatever. Then it was supposed to neutralize the acid chyme and precipitate the

peptones so that the trypsin could act upon them; but it was found that this agent acted in alkaline, acid or neutral media. Then it was credited with powers as an intestinal antiseptic until it was proved that bile formed an excellent culture fluid for various bacteria, while the stercoremia and clayey stools are due to an excess of undigested fats from pancreatic obstruction, and when these were removed by ether the natural color of the stools returned and bile was detected in them.

"In short, the physiologist, the comparative anatomist, and the biologist, unite in regarding the bile as, in the language of Landois, a metabolic excretion, playing only an insignificant part in the process of digestion."

Dr. Hutchinson next gravely steps upon and squelches the idea that the digestive function of the liver may be inferred from its anatomic derivation from the entoderm. As the same is true of the lungs and the central nervous system, the objection seems well taken.

The development of both liver and lung however gives a clue to their functions, since each receives the blood through a separate vascular system; and we may justly infer that each plays a prominent part in depurating this fluid. Both empty their excretory products at most irrational and inopportune locations, the lungs requiring a special trap to prevent the commingling of the air and food streams, while the liver pours its waste flood directly into the bowel at the site of the most active digestive processes. When we have thus cleared from our mental vision the old ideas of the digestive functions of the liver we see its true importance as a toxin destroyer or poison filter. Ligation of its vessels is followed by rapidly fatal coma and not by mere impairment of digestion. Blood from the portal vein is far more toxic than from the vena cava.

Under this view that ancient symptom-complex, entitled biliousness, is simplified to translucency as the pouring into the portal vein toxins, acetone, butyric acid, the products of intestinal fermentation or putrefaction, in such quantities that the liver is unable to reduce or even to arrest them. A moiety passes into the general circulation, causing the familiar symptoms, headache, anorexia, drowsiness, and general depression. "Clear the alimentary canal, either by a sharp purge, or a combination of this with intestinal antiseptics, like calomel, or even pour in considerable amounts of some non-poisonous antiseptic without purgation to stop the formation of these poisons, relieve the pressure on the liver filter, and the whole symptom-complex clears up."

The action of the liver on the portal blood is three-fold: Transforming acutely poisonous products of digestion or of bacterial action, into relatively harmless substances that form part of the bile; building up certain low-group radicals from decomposition of foods such as ammonia, amido-acids, lactic acid and aldehydes into harmless non-poisonous products like urea and uric acid; and probably the elaboration of certain groups split off from proteids and carbohydrates in the process of digestion into serum albumens, globulin, glycogen, and other constituents of the body tissues.

The versatile author then turns to catarrhal jaundice and denies its obstructive origin, except in rare cases. Overloading an excretory organ with poisons for reduction will check its secretion and cause congestion and stasis as surely as blocking its duct. Jaundice may be caused by influenza and the innumerable mild infections absurdly denominated "colds;" by tonsillitis, diphtheria, scarlatina, measles, typhoid fever, pneumonia, summer diarrheas and dysenteries. In the severer forms, the obstruction theory is ludicrous in its inadequateness, while the poison-filter view fits the facts perfectly. He discusses here Weil's disease, the jaundice of typhoid fever, acute yellow atrophy, melena neonatorum, and the group of hematogenous forms of which that present in true yellow fever is a type.

Moreover the cases in which jaundice is visible form possibly only a tithe of all in which hepatic deficiency is the leading feature. Phosphorus, lead, alcohol and

arsenic furnish cases. Alcohol acts less through its direct influence than by the dietetic disorders it occasions, through which gastrointestinal toxins are formed. Hepatic cirrhosis may be produced by the injection of butyric, lactic and acetic acids most certainly and rapidly, and the addition of moderate amounts of alcohol actually neutralized instead of increasing their toxicity.

The treatment of biliousness varies with the condition—a mere alteration in the amount or quality of the food-supply; a cathartic to sweep the whole mass out of the intestines; an intestinal antiseptic; a cardiac tonic to increase the vigor of the general circulation and the rapidity of the flow of blood through the liver; an antitoxin for some definite toxic condition; a diuretic or diaphoretic to clear the waste substances from the blood.

We know nothing capable of acting on the liver, and if it did it would probably simply complicate matters. Cholagogs sweep clear the alimentary canal, check intestinal putrefaction, increase blood flow through the liver, stimulate other eliminants, or are pure humbugs—the last class by no means least in numbers.

A most interesting field just opening up is the toxic and degenerative changes in the liver as a principal factor in disease. Whitridge Williams showed the relations of the liver with hyperemesis gravidarum and eclampsia, where there may be no albuminuria. Enlargement of the thyroid during pregnancy may be due to its participation in the destruction of these toxins that escape the liver. Bevan has reported a group of deaths following chloroform anesthesia, which have proved to be associated with acute degeneration of the liver, directly due to the chloroform, which destroys the hepatic cells. Marked inflammatory and degenerative changes may be detected in all fatal cases of pneumonia; and this vindicates the insistence with which we have urged the importance of clearing out and disinfecting the bowels in this disease.

In conclusion Hutchinson refers to the curious similarity of the final syndrome in a large percentage of our fatal cases. There is the familiar group of headache, drowsiness, loss of vision, Cheyne-Stokes respiration, increase of expiration over inspiration, coma, convulsions, and death closes the scene. Whatever the cause, the dying picture is so similar that we cannot help feeling that the death is due not to the original toxin but to gradual accumulation of toxins in the tissues—to liver failure in fact. "With positively inspired stupidity, we still term this symptom group 'uremia,' although we have known for twenty years that urea is almost non-toxic, is not present in the blood in excess in this condition, and that the condition is due to the incapacity of the liver to form urea out of its much more poisonous precedents."

The holy passion of Friendship is of so sweet and steady and loyal and enduring a nature that it will last through a whole lifetime, if not asked to lend money (or pay a bill.—ED.).

—MARK TWAIN.

"WHY WE ARE POOR."

Does it ever impress the doctor that there is a reason why he is not easy in money matters? That there is an explanation of the very unpleasant fact that when he wants to increase his medical armamentarium by the addition of modern agencies to aid him in his work, he must choose between the acquisition of these and providing needs for his family? It is not, most emphatically not, because there are too many doctors. It is due, most emphatically so, to the fact that a part of his income is diverted from his own pockets into those of unprofessional competitors. Who do you suppose contributed the $20,000,000 Mrs. Eddy is credited with having received? Every last penny of it, Doctor, was taken from the income of the medical profession. Every dollar of the countless millions brought into the coffers of the Dowies, the Weltmers and others of that ilk, is so much subtracted from us. Have you any idea of the quantities of money paid by the people for medical treatment, that does not come to the medical profession? Pos-

sibly the following extract from "Financial Converse" may enlighten some of you gentlemen who do not think this matter is worth considering:

"A little over a month ago the Baldwin Syndicate made the statement that the proprietary medicine companies of St. Louis are paying more in dividends than all the banks of the state of Missouri combined. We have not as yet seen anybody who could refute this statement, but we were so deluged with letters on the subject that we decided to compile a list of the profits of the 12 leading companies of St. Louis, which city undoubtedly has more patent medicine companies than any other city of the United States.

"The result of our compilation, which has been very carefully made, shows that the 12 leading proprietary medicine companies of St. Louis earned last year an average profit on their capital stock of 257½ per cent. The lowest profit made was 90 per cent for the year and the highest 500 per cent. The following are the figures of each company: 175 per cent., 400 per cent., 200 per cent., 300 per cent., 150 per cent., 90 per cent., 150 per cent., 500 per cent., 300 per cent., 125 per cent., 300 per cent., 400 per cent.; a total of 123,090 per cent., and an average of 257½ per cent."

An ultra pessimist is one who concedes that every cloud has a silver lining, but who cites the fact that silver isn't worth anything like what it used to be.—W. D. NESBIT.

QUACKERY: THE WHY OF IT.

In the discussion of Quackery, we cannot but feel that no recent author has gone to the bottom of the matter. In all departments of human thought, however, the student of history will tell us that the higher we elevate our standards, and the more nearly we approximate perfection, the fewer will be the number of human individuals who come up to our standards. The Latin language reached its highest perfection in the Augustan era, and from that time the separation became notable, between the language of that cultivated court and that of the common people. The latter, ever changing, constantly modified by the importation of new words, phrases and modes or pronunciation, finally made the tongue of Cicero a dead language, studied only by scholars and not used as a means of intercommunication by the people.

While it may please us to cultivate the resort to surgery, and to popularize the indirect therapeutic methods which have recently held such vogue, in direct proportion as the medical profession has turned to these expensive, tedious, and in other respects objectionable methods, in just that proportion the people have turned from the medical profession. We may usefully correlate the two facts, that in Germany, where the modern use of this therapeutics attained the highest point, the number of quacks has most increased, until they greatly outnumber the regular profession, notwithstanding the difficulty under which they labor in being unable to legally collect bills for medical attendance.

Even when the direction of our labors is towards true science in the abstract, we draw away from the people, so that the physician who attains the reputation of being "theoretical," or even is termed in common parlance "scientific, has thereby established in the minds of no inconsiderable number of people the impression that he is too good, too nice, too delicate, for the things of an everyday world; and should be kept like the cut glass and French china—for company occasions.

In this respect, however, the active principles fill a unique place, in presenting at the same time the highest exemplification of drug therapeutics as an applied science, and winning popular favor by their unique applicability to everyday conditions. Truly, they again vindicate the Baconian, utilitarian philosophy.

While we believe in abstract science, we may justly demand that the entire attention of physicians should be paid to the practical duties of their clinical work, until such time as no further progress is possible

in this direction; until the imperative, immediate needs have been fully satisfied, before they devote their time to scientific work of less obvious utility.

Don't imagine, my good friend just back from Vienna, that because you have learned to deride drugs the people are going to sit down and die while waiting for the serum to be developed. You will find that they have procured a bottle of medicine from the veterinarian or the corner druggist, and while they say nothing in response to your pessimistic harangue, they whisper among themselves—"Doc's no good; he's too darned theoretical."

Keep close to the heart of the people; the warm, pulsating, vivifying stream of good red blood that is alive and life-giving. Use the language of the people—maybe it's slang, but it also is alive, and expresses the thought in terms that carry quick apprehension.

There is but one straight road to success, and that is merit. The man who is successful is the man who is useful. Capacity never lacks opportunity. It cannot remain undiscovered, because it is sought by too many anxious to use it.—BOURKE COCHRAN.

ALCOHOL IN MEDICINE.

A recent number of the *Medical Council* gives forcible expression to the danger of prescribing alcohol, or medicines containing alcohol, to children. It is not a bit too strong.

"Physicians commendably desire to prescribe as accurately as possible, excluding any active agent which is not required. This should be their especial aim when prescribing for children, whose unperverted systems are peculiarly susceptible. Would you give an infant a teaspoonful of whisky or brandy or a tablespoonful of beer every half hour or hour in an ordinary complaint? Yet you are giving as much alcohol as that would represent when you give your medicines in an *elixir* to make them palatable. We should exercise the same precaution when prescribing for adults. We do not want to help form an alcohol or narcotic habit nor to cause the resumption of one that has been abandoned."

Why, oh why do physicians continue to confuse their therapy by potent and dangerous "vehicles" whose effects are nearly always undesirable and whose continued use may lead to the formation of drug habits. Stick to the single remedy—let us always use the indicated one and no other!

Ten years from now 90 per cent of all uncertain galenicals will be shelved in favor of the active principle and definite substances that may be depended upon.

Conceit is to the human character what salt is to the ocean; it keeps it sweet and renders it endurable.—O. W. HOLMES.

GOOD TOOLS, GOOD RESULTS.

A physician with a large practice in Michigan, who for obvious reasons asks us not to publish his name, wrote us a few days ago, saying:

"Last January I ordered the JOURNAL and a pocket case, 9-vials, filled. I used them carefully and as I thought in cases where indicated and never had better results.

"I studied your treatment of typhoid fever and made myself familar with it. I purchased the sulphocarbolates and used them as conditions indicated. 'The clean out, etc.' does the work. I never had patients get well so rapidly. The fever was checked and patients on road to recovery in two weeks."

Comment is unnecessary. Just such reports as these have been received by us scores and even hundreds of times. On the other hand it is very rare for anyone to write us that he failed. In fact it is impossible for a man to fail if he uses ordinary diagnostic skill and therapeutic acumen. The most successful mechanic would make a very poor job if he tried to mend a delicate watch movement with a crowbar, carpenter's saw and brace and bit; so one can imagine what the average workman would do with clumsy tools. Give, however, even the ordinarily skilful man a perfect kit of tools, each one being positively suited to the purpose for which it is used, and a fair result is assured expected. Now put perfect tools in the hand of a perfect workman and a result that had

justified in expecting a phenomenally perfect result?

MORAL: The most perfect instruments cannot make an expert of a bungling practician, and even the expert cannot do expert work with crude instruments.

Nichts thut so weh als das Todschweigen.
—E. M. EPSTEIN.

FOOTNOTES VERSUS "THERAPEUTIC NUGGETS."

Readers of CLINICAL MEDICINE this month will at once miss the familiar "footnotes." Wait a minute—don't write us that letter of protest just yet. The footnotes are not gone, but just translated! You will find them collected at the end of the reading portion of the JOURNAL under the new department of "Therapeutic Nuggets." Look this over and tell us how you like it. Dig up a few "nuggets," Doctor, and send them in.

AUTOINTOXICATION IN MENTAL DISTURBANCES.

In the *Boston Medical and Surgical Journal* this spring appeared a remarkable paper by L. Vernon Briggs, Physician to the Mental Department of the Boston Dispensary. His investigations seems to show that among alienists there is practically a consensus of opinion that autotoxemia is a factor in most cases of mental derangement, as a symptom or as a cause. Dr. Briggs has enjoyed unusual opportunities of seeing these cases before the stage at which they are consigned to the asylums, and he is strongly imbued with the belief that the autotoxemia is a causal factor.

Ford-Robertson has isolated a bacillus to which he attributes paresis, and Bruce finds others to cause katatonia and acute mania. That others have not found these is not proof that they do not exist. The fact that antiseptics benefit mental cases quickly than any other treatment, the therapeutist feel that he is on t way, and he scarcely feels like stopping his successful methods because the pathologist has not yet found the special toxin at fault.

Dr. Briggs gives the details of ten cases of mental aberration treated by emptying and disinfecting the alimentary canal. He does not base his success on the use of any one antiseptic but on the application of the principle with which our readers are somewhat familiar—clean out, clean up, and keep clean.

The author's views are fortified by quotations from some fifty authorities, principally physicians in charge of asylums for the insane, who have recognized the part played by autointoxication in the cases under their care. Dr. Briggs has done good service in thus bringing the subject forward in a forceful, convincing manner.

The great souls are always positive and creative. They probably know a thousand times more of the depths of gloom that underlie life than the professional pessimist; but they also have faith in the light which scatters the darkness, and in the achievement which makes life a reality instead of a lie.
—W. F. SHELDON.

A JURY OF PHYSICIANS.

Some years ago Dr. Millican, now of the *St. Louis Medical Review*, suggested that the evils of the present medical expert witness system could be obviated by having these gentlemen argue the medical aspects of the case before a jury of properly qualified physicians. Along this line Dr. Scherck, chief dispensary and jail physician of St. Louis, has arranged a plan by which any criminal who may be suspected of insanity is brought previous to his trial before a board of experts who make report to the court. After over a year's trial of the plan, not a single case has occurred in which this commission's report has been rejected by the jury when the accused had refused to accept the view of the commission. (*St. L. Med. Review.*)

This result has been obtained by agreement between the bench and the medical profession. It is well worth imitation and extension.

LEADING ARTICLES

A CASE OF THE MORPHINE HABIT

The stoppage of the drug is but the beginning of the cure; the treatment of the morphine habit is the treatment of each individual case. This is the text of this article

By WILLIAM F. WAUGH, A. M., M. D., Chicago, Illinois

A LADY, the widow of a prominent physician of an eastern city, applied to the writer for treatment of the morphine habit. She had commenced the use of this drug hypodermatically four years previously, for relief from the pangs of dysmenorrhea. After taking the injections continuously for a year she succeeded after a desperate struggle in shaking off the habit, and remained free for a year, when the recurrence of the disease with the grief of widowhood drove her back to it. At the time she applied to me she had been taking morphine alone for two years, in doses at present of four grains per diem. The usual symptoms were present. The apparent reason for desiring to stop the habit just then was that her three children needed better care than the victim of such a habit could give them, and were reaching an age when it could not well be hidden from them.

Examination showed a well-nourished frame, with no discoverable evidences of organic disease. The bowels were loaded as usual with feces and toxemic symptoms were not wanting. The urine presented traces of bile and an excess of aromatic sulphates. The ferric chloride test indicated the presence of morphine in abundance. I have reason to doubt the value of this test, however, and do not consider it at all positive evidence of the presence of this drug.

The patient was confined to her bed under the charge of a trained nurse, and the bowels completely emptied by the use of hot colonic flushing, with a grain of pure cephaeline-free emetine at bedtime and teaspoonful doses of the saline laxative in a glass of hot water every two hours while waking. This required four days before the accumulations were completely removed. Meanwhile she received twenty minims of corn nuclein three times a day, dropped on the tongue to be absorbed from the mouth without swallowing, and strychnine valerianate gr. 1-134 every hour or two to sustain the nervous tension.

The morphine was in this case stopped immediately and she received only one dose of one-fourth grain thirty hours after the last one taken before commencing treatment. This was administered with hyoscine hydrobromide gr. 1-100, and cactin, hypodermically, in the form of one of the tablets designed for surgical anesthesia. The patient went to sleep promptly, and after a restful night awoke in good trim and asked for no more of the drug. Several times during the subsequent month she complained of various paresthetic unpleasantnesses, all which subsided promptly after taking a grain of calomel in divided doses, followed by a full dose of saline laxative. For two weeks she took morning doses of the saline, and after that had

instead an evening dose of five laxative granules, of the alkaloidal formula. The nuclein was gradually lessened and discontinued during the fourth week. This comprised all the treatment of the case other than that normal support and encouragement that mean so much. Unless the patient can be placed in such surroundings as are pleasant and she is relieved of worry, the results will not be so favorable. In this case we were fortunate in securing the services of an ideal assistant and companion in the nurse, who kept up the patient's spirits and amused her constantly. In fact I remarked one day that the two ladies seemed to do nothing but laugh!

No Suffering Experienced by the Patient, Except Autotoxemic Qualms

When I compare this case with the ones I treated during the first year I studied this malady, I am impressed with the difference. There was here no "ordeal," no suffering, no shirking behind any drug substitute. The patient had scarcely an unpleasant sensation except those autotoxemic qualms that were relieved by calomel and saline. One day the gastric glands poured out such large quantities of hydrochloric acid that she had a lavage and took quite a lot of sodium bicarbonate. As usual the liver poured out floods of bile for several days, and the ravenous appetite followed. Here the cold baths were begun, with excellent effect, the reaction being prompt and the delicious sensation of euphoria resulting was pronounced by the patient superior to any she had ever experienced from morphine. Not that I look upon the cold bath as an essential in the treatment—it suited this case. In fact, one of the things we learn from experience is that there is no treatment of the morphine habit but *a* treatment suitable for each separate case of that malady, and for no other case of that malady.

From the time this lady stopped the drug before until she returned to it she had no peace, but was worn out by a constant craving for it. This exemplifies what I have contended, that the stoppage of the drug is only the beginning of the cure, the real problem then presenting itself for solution. During the month the patient remained in my care her temperature was taken twice a day. Seven months have elapsed, and still her temperature is taken morning and evening.

The Desire for the Drug Gone---The Patient Now a Nurse

As yet no subnormal temperature has been detected, nor has there been evidence of autotoxemia. Menstruation has been so normal that no necessity for a local examination has arisen. The patient assures me that she has in this time felt no desire or need of the drug, nor has she had any distress or pain; she has been well and happy, and has even occupied herself most of the time in nursing the sick, to which occupation she is strongly attached, from choice, not from necessity. As a nurse she has been unusally efficient and has borne the responsibility and the loss of rest without difficulty. It is not easy now to realize that within less than a year this devoted nurse was a despairing drug habitue.

The Danger of Relapse Due to Emotional Strains

The critical period in this case has now passed and there is reason to feel secure that she will never relapse, unless she is placed under one of those long-continued emotional strains which no woman is adapted to withstand without her natural ally and supporter. Only he who knows positively what may be evolved from the womb of time can promise a permanent "cure" of the morphine habit. Meanwhile this case is not presented as an instance of the value of corn nuclein, nor of the hyoscine combination of any other remedy employed in the case; but it is a good example of correct therapeusis applied to the needs of the case treated.

A DESPERATE CASE OF PNEUMONIA CURED

A doctor's first experience in the treatment of pneumonia by the alkaloidal method. Can pneumonia be aborted? His answer.

By CHARLES A. S. SIMS, M. D., Kansas City, Missouri

I FEEL that the report of the following case of typical adynamic pneumonia will be read with much interest by all of the "new converts," as the writer is new in this field of medication, having been using the alkaloids for about one year. It is good to make an open confession, so I wish to state that I have been fighting the "alkaloidal system" for years, with as much energy as Paul is said to have fought the Christians of old, in and about Damascus. I fought as desperately as my ignorance of alkaloidal medication would permit me, for I knew nothing about the active principles, neither did I care to know anything about them. I never let an opportunity escape to give the "little pills" a black eye. I do not fight them any more—no, brother, I will have a good word for them henceforth and forever—since I demonstrated their ability to work as they did in the following case of pneumonia, which had all of the symptoms of that low form we see occasionally, fearing the fatal outcome we know is almost sure to come, in from six to nine days from the onset:

The Early History of the Case; Typical Pneumonic Symptoms

Mr. J. F. E., Cleveland Ave., city. Age 37 years, 9 months, 5 days; occupation, collector; 5 feet, 7 inches tall; weight 170 pounds; light complexion.

I was called to attend Mr. E. at 10 a. m., Sunday, April 15, 1906, by a neighbor who said: "Doctor I want you to go at once and see Mr. E., as he has been sick since last Friday morning, with an awful pain in his side and he is coughing up great mouthfuls of blood. I don't think he will live much longer." History: For ten days previous had been suffering from what he and his wife called "a bad cold," evidently influenza. At 3 a. m. Friday, the 13th, he had a severe chill lasting two hours, followed immediately by high fever and severe cough which was at first quite dry but soon became moist and profuse; expectoration of a thick, tenacious "brick-dust" material was coughed up, followed in a few hours by an expectoration of large quantities of bright-red blood, showing the great state of engorgement of the pulmonary capillaries in the affected lower left lobe. At the same time there set up persistent, lancinating pleuritic pains over the affected lobe.

The Patient Much Prostrated; Sense of Impending Death

I found the patient very much prostrated, with an expression of fear on his face that was distressing to witness. This was, no doubt, due to a sense of impending death from suffocation, as we have all seen in these low pneumonias shortly after the onset. All of the symptoms of the disease were present, more or less marked, and there was no mistaking the nature of the disease I had before me; it was a severe one and I dreaded the outcome. I and another physician had lost a similar case only four months ago, seeing him die on the tenth day.

April 15th., 10 a. m.: Temperature 105.8° F., pulse 124, respiration 40. Face flushed, especially the left check which was scarlet and the whole surface of the body was hot and dry; scant elimination from the kidneys, eyes very bright.

Treatment.—One-tenth calomel aromatic tablets every half hour for ten doses, followed by heaping teaspoonful of saline

laxative in a glass of hot water, which gave me a clean intestinal canal. One granule each of aconitine, veratrine and bryonin were given every hour from the start, not waiting for the action of the calomel. The object was to equalize the circulation with the two former and control the pleuritic pains with bryonin.

Decided Improvement Under Alkaloidal Treatment

April 16, 9:30 a. m.: Temperature 102° F., pulse 95, respiration 32. Patient was entirely free from pleuritic pains, had slept well during the night and said he felt much better. Expectoration was very copious and consisted mostly of bright-red blood. Skin slightly moist and much freer kidney elimination. As not a toxic symptom of the aconitine or veratrine was observable I directed them continued hourly (three doses had been missed during the night). Bryonin was discontinued as the pleuritic pains were not present. I left some granules of emetine, gr. 1-67, to be taken hourly to facilitate expectoration, with instructions to discontinue if nausea arose. With the view of combating toxemia, I ordered one granule calcium sulphide, gr. 1-6, given hourly along with the other granules. The manner in which this patient stood the aconitine shows clearly that there are small chances of poisoning with aconitine when these granules are given with a high temperature to subdue. I ordered a heaping teaspoonful of saline laxative to be given every morning until further instructions.

April 17, 9:50 a. m.: Temperature 100.8° F., pulse 82, respiration 32. Patient was more restless than when last seen as I had withdrawn the bryonin too soon and there was a return of the pleuritic pains. I ordered the bryonin given, one granule every hour until the pains were gone and then to give one granule every three or four hours for twenty-four hours. As there was some nausea the emetine was discontinued and sanguinarine nitrate, one granule every hour, substituted. All other medicine continued as before given. At this visit I ordered three tablets nuclein (2 drops) and two tablets intestinal antiseptic (Waugh) given every six hours. The expectoration was very copious and showed 50 per cent less blood.

April 18, 10 a. m.: Temperature 101° F., pulse 82, respiration 24. Patient was feeling comfortable but complained of considerable restlessness during the night, but not from any pain. Patient had up to this time refused to take any nourishment and I ordered sweet milk in tumblerful potions given every two hours. I discontinued the aconitine and veratrine and substituted defervescent compound No. 1, as I wanted the contracting effect of digitalin on the pulmonary capillaries. These were given every hour unless the fever subsided, then every two hours. The expectoration was very copious, being thrown off in great mouthfuls frequently. There was less blood than the day before. The saline laxative brought away two large stools each twenty-four hours and I will say here there was not the least trouble with the bowels during the attack.

Temperature Normal Sixth Day; Sitting Up in Bed

April 19, 9:20 a. m.: I found Mr. E. sitting up in bed with a shawl over his shoulders. He greeted me as follows: "I tell you, doctor, I'm all right this morning. I drank a quart of milk yesterday, quit my fever medicine at 9 o'clock last night and slept fine all night and want to get up tomorrow." Temperature 98° F., pulse 62, respiration 35. There was no blood in the expectoration and more than 50 per cent of the quantity thrown off consisted of the white, frothy, normal bronchial secretion. He was hungry and I told him he could eat some beef broth, crackers or toast. I ordered the defervescent compound granules to be given every three hours during the day, to be discontinued at 6 p. m. if no fever was present. The sanguinarine nitrate was continued every three hours, the calcium sulphide every two hours, the intestinal antiseptic and nuclein three times daily.

April 20, 9:40 a. m.: When I called I found Mr. E. sitting up in bed. He begged

me to let him out of bed, which I refused to grant. I told him that he could sit up in a chair for fifteen or twenty minutes tomorrow afternoon and if this went well with him he could leave the bed Sunday, April 22 (the ninth day from the onset). Patient was hungry and now eating a little quantity of anything he wanted. Calcium sulphide and the intestinal antiseptic dropped. I did not see Mr. E. April 21. April 22 I called and found him dressed and eating his dinner. He said he was well and had stopped taking medicine entirely.

Could I or you or any one else have such results from galenicals? I never have and I have tried it often in the past twenty-four years. Ten days from the onset and up, when under the old order we would look only for resolution to set in, which is a very precarious period of the disease. If our patient was up in ten days after resolution set in we were patting ourselves on the back for the success we had with the case. Quite frequently I have heard about the aborting of pneumonia, but I "passed it up" as a vague idea of some doctor that wanted to build up a reputation on "fairy tales," but I certainly aborted this case, cut it at least in two in the middle; better still, I have done the same thing in three out of four pneumonias since, which has firmly established a confidence in active-principle medication.

ACUTE BRONCHITIS IN CHILDREN

A review of the causes of the common colds of childhood, with the best methods of preventing, treating, and quickly curing them

By GEORGE H. GANDLER, M. D., Chicago, Illinois

BRONCHITIS is a common affection among children, especially during their first dentition." This statement from a modern text-book upon Childrens' Diseases may fairly apply still outside the large towns and cities but the practician, familiar with urban conditions, would make it read throughout the entire school life.

The modern city child—often none too well blessed with stamina to start with—is housed, as a rule, in small, poorly ventilated, superheated (or freezing) flats or apartments. Even though he inhabit a separate house the air he inhales therein will usually be none too pure. Rising in the morning, after a hurried breakfast (half masticated) he leaves the house for school. *En route* he may be subjected to the foul, germ-laden air of the street car or, more fortunate, may arrive at his class room merely cold or with wet clothing and soaked feet. In the latter condition, for three long hours, he will tax his vitality while "drying out," meantime breathing again a superheated, deoxygenized atmosphere.

Noon arrives and he rushes out suddenly into whatever climatic conditions prevail locally. Cold or wet once more, on arriving home he sits down to a heavy meal, which he rapidly devours and then, again facing the elements, he hurries back to school. Two more hours of study and "drying out" and for the fourth time in twelve hours the growing child hastens from a hot, close room into the outer air. Another wetting perhaps going home and then an evening spent in the unhealthy air of the gas-lit flat. Is it not natural that we have coughs, colds, and other more serious diseases to contend with? Is it any wonder moreover, that treated improperly, these first "coughs" and "colds" develop later into the pneumonias and consumptions which take such a terrible toll from the human race?

That it behooves the family doctor to know how to treat these conditions goes

without saying, and yet, alas! how many men are satisfied to prescribe an opium-bearing cough syrup or dispense some much-lauded tablet which is guaranteed by the manufacturers to "cure any cold within twenty-four hours?"

Even the more thoroughgoing physician is likely to look upon an "ordinary cold" as a trivial affair, and this constant belittling of a really dangerous condition by the doctor has led the laity to go even farther and regard an acute bronchitis or rhinitis as a species of annoying but inevitable discomfort which will finally disappear under a course of hot lemonades and patent "cold-cure" from the corner druggist.

Nature is very wonderful and Providence most kind, consequently many children so treated do get (or seem to get) well (though it is noticeable that these unfortunates are continually "catching a fresh cold" thereafter) but a cetrain proportion refuse to improve and finally the doctor is called to treat what is now a dangerous disorder. The vital statistics show how frequently he is vanquished.

Prevention the Best "Cure"

A few moments' consideration of the subject will enable any sensible physician to come to certain conclusions. First, that the "best way to treat" the colds of children is to *prevent* most of them, i. e., to impress upon parents the necessity for fresh air, proper food and clothing and protection from wet feet; to see to it that schoolrooms are kept at a proper temperature and well ventilated and that the children themselves are taught (at school as well as at home) to take ordinary care of themselves; further, that children already coughing or showing other unmistakable signs of sickness be excluded from class rooms and subjected to immediate medical inspection. Much is already being done in this direction, but until the profession as a whole awakens to its responsibility in this direction the death rate among school children will continue to be appalling.

Secondly, the doctor will realize that even the primary form of *acute catarrhal bronchitis* may present a varying pathology. The close diagnostician will see in each case something more than "just a cold," and seeing, will probably exhibit medication differing entirely from the traditional and deadly cough mixture!

A Brief Review of the Etiology

A moment's review of the etiology and pathology of the disease may not prove uninteresting here. "Exposure to cold, wet or draughts" is given as the usual cause, but we may safely add, of those whose resistance is below par or systems already influenced by toxins or pathogenic bacteria. The perfectly normal child *may* contract bronchitis from ordinary exposure but is not likely to do so; but the delicate, overfed (or underfed), improperly clothed girl or boy, subjected each day to the conditions already depicted, is almost sure to—if not one day, then another. Indeed, during the winter or spring months it would be impossible to enter a city schoolroom and not find a very large percentage of the little ones affected with catarrh to a greater or less degree.

That the ordinary "cold" is contagious is denied, but, with our present knowledge of bacteriology, it is easy to comprehend why acute catarrhal conditions prevail steadily among school children when scattered among the hundred or more in a given room we can detect ten or twenty "coughers" and "snufflers." Of the whole number many get well; others contract chronic catarrh in some of its various forms and a minority drop out to undergo a siege of bronchopneumonia, fibrinous bronchitis, lobar pneumonia, phthisis, or some similar serious diseases. *Then* the doctor is called and *then* he works; but too often the very conditions which rendered the child an easy subject to primary catarrh turn the balance in favor of the Grim Reaper and once more the little white hearse carries away the victim of modern conditions.

"Inhalation of dust or irritating vapors" is another cause of acute catarrhal bronchitis. The modern furnace carries through the living and sleeping rooms millions of germs from the ground level. The skirts

of the female members of the family bring in bacteria and filth from the sputum-spotted sidewalk and later, this dessicated dust enters the nasal and oral cavities of the child whose mucosa is already swollen, congested and abraded as a result of exposure. Naturally, we shall have here some form of catarrh—or worse!

If the physician will explain these things and will impress upon the mothers of children to send for him at the first sign of a "cold" there will soon be less victims to respiratory disease—provided, that is, that the treatment is based upon a rational understanding of the pathological conditions present—of which cough is but one symptom.

The ordinary "cold" is usually a tracheobronchitis; complicated, it may be, by an acute rhinitis later, the medium-sized bronchi are involved and finally—especially in very young children—the smallest tubes become affected (capillary bronchitis). The doctor who has treated a few cases of this disease knows how essential it is that the process shall be stayed in the earlier stages.

Diagnosis Is Not Difficult

It is not difficult to make a diagnosis. Upon inspection we shall find the child flushed, with dry lips, somewhat congested eyes and running nose. Cough exists in varying degree of severity and the temperature will ordinarily reach 100--102°F. Occasionally the thermometer will show 103°F. This invariably indicates extensive involvement of the air passages or pronounced autotoxemia. In these cases the tongue will usually be found covered with a yellow coat; the breath will be fetid and the bowels obstinately constipated. In short, we have a bronchitis in an autotoxemic subject. Had the autotoxemia not existed the bronchitis most likely would not have occurred.

The individual presenting a favorable field for germ propagation is the one who nearly always reaps the harvest of toxins. That the physician should understand this is essential, otherwise his treatment is likely to run along the "anodyne and astringent gargle" lines. Examination of the upper respiratory passages will reveal a red and swollen mucosa from which issues a serous exudate, mixed with pus cells, desquamated epithelium and mucus. The respiration is rapid and irregular and upon auscultation rales, loud and coarse, can be easily heard. In fact upon laying the hand over the sternal notch the rattling can be easily felt. The head aches, the child complains of being "sore from the cough" and, not infrequently, vomiting occurs after a particularly hard attack of the latter. Examination of the urine usually reveals marked metabolic disturbance. In every case the sputum should be examined as soon as the case is seen and again after a week if the symptoms have not ceased. In this way the tubercle bacilli (when present) are discovered before much damage is done.

Course Short, but Relapses Frequent

The usual course of an uncomplicated acute bronchitis in seven to ten days, but relapses are frequent and unless "systemic tone" is improved one attack is likely to follow another, the child being practically never free from cough or other symtoms of catarrh during the winter and spring months. Here, unquestionably, is the beginning of many cases of phthisis—especially among the children of the tenements who are never free from the presence of the tubercle bacilli.

I shall not attempt to give a description of the various forms of bronchitis. As a matter of fact the treatment which will promptly cut short an acute bronchitis will, slightly varied, more slowly control the chronic or fibrinous varieties. Fortunately we do not often have to contend with the latter disorder, for hitherto the death rate has been over 75 per cent. Modern medicinal measures will undoubtedly reduce these figures one half. Occasionally we are called to unusually severe forms of acute bronchitis. High fever, dyspnea, prostration and more or less cyanosis evidence the extent of the disease. Quite often such cases are diagnosed and treated as "pneumonia" but careful auscultation and percussion will serve to show the absence of

consolidation. Death may follow however; the child being unable to void the secretions which clog the bronchi. Success or failure hinges in such cases upon the first twelve hours' treatment. If seen early no case of acute bronchitis should assume the more violent form.

How to Treat an Attack of Bronchitis

In even simple cases (the "common cold") the first thing to do is improve the child's surroundings as much as possible. See that it is kept in a well-aired room at 70°F. and explain the danger of sudden changes. Order light but nutritious food, "a little often" being preferable to the three square meals *per diem* usually deemed sufficient. Have the child sponged (in a warm room) with a solution of magnesium sulphate (one ounce to the quart of water at 100°F, adding ten minims of carbolic acid to this amount). Over the upper thorax and throat apply a compress of old linen or lint wrung out of this solution and, over this again, apply a flannel bandage. Change every four hours.

The sponging should be repeated daily for three days. If you have any doubt as to the patient being exposed to draughts, etc., *put him to bed.* At your first visit dispense six half-grain doses of blue mass and soda (or an equal number of gr. 1-6 tablets of calomel). Three tablets of podophyllotoxin (gr. 1-12) should be left also. Direct one granule of blue mass and soda (or one of calomel) half hourly till the six are taken, one podophyllotoxin to be added to the alternate doses. A seidlitz powder or saline draught (magnesium sulphate) should follow the last dose; it is best given an hour later. This medication will generally have to be repeated in twenty-four hours. If not then, on the third day.

Every three hours the child should take gr. 1-3 of calx iodata, in powder, washing it down with water. A teaspoonful of a solution of aconitine, gr. 1-134, bryonin, gr. 1-67, apomorphine, gr. 1-67, boiling water one dram, should be given every two hours for four doses, then every four hours. Enough for one day should be prepared by the doctor in a glass, and to make the medicine acceptable he may add a granule of saccharin and a few mint tablets. Twelve doses of calcium sulphide (gr. 1-6 each) are also left and one dose is ordered hourly.

If the family possesses an atomizer the bottle should be filled with any good alkaline antiseptic and the mouth, fauces and nares should be sprayed with this several times daily. If no atomizer is available make up a similar solution in a glass and order the mouth and nose to be swabbed at similar periods. Older children can gargle and use the ordinary gooseneck douche with advantage. The main thing is to clear the posterior nares and upper respiratory tract of toxic material.

Quick Response to Alkaloidal Treatment

As a rule, under this treatment, the cough will speedily lessen and temperature fall to normal. It is an excellent plan at the very start to drop ten minims of eucalyptol upon a tin can half full of boiling water and allow the child to inhale the steam through a cone made of cardboard or newspaper. The water can easily be kept boiling by placing the can upon a small stove. Inhalations should be frequent and last fully three minutes. If the disease has progressed it may be necessary to add brucine gr. 1-67 or strychnine valerianate gr. 1-134 to the solution of aconitine, etc.

If the heart action is good these drugs need not be used. In cases where the secretions are profuse and dyspnea is present atropine, gr. 1-500, and strychnine, gr. 1-67, may be given every three hours for one day. This combination serves to stimulate respiration and where intelligently used there will seldom be need for more heroic measures. If the secretions are viscid and expectoration is scanty, scillitin, gr. 2-67, may be added to the above with advantage.

These untoward complications will however rarely present when the typical case of acute bronchitis is seen within the first two days and treated as suggested.

The physician must, however, be prepared for any emergency and as a "few

doses of the right remedy given at the right time" mean success it is necessary to consider the indications for several drugs. Codeine, gr. 1-34, acetanilid, gr. 1, caffeine, gr. 1-6, will give excellent results when exhibited to older children who complain of pain and carry a high temperature. These patients almost always cough hard and constantly. This formula may be given in place of the aconitine, bryonin, etc., for say two doses, and if necessary after that the two prescriptions may alternate. In nearly every case however as soon as the bowel has been thoroughly emptied and the skin becomes active (as it will after the epsom-salt sponge and application of the compress) we shall find the entire train of symptoms improved. Therefore do not be in too great a hurry to alter your medication: proceed as recommended, adding additional drugs only when positively necessary.

Treat to Suit the Condition

If the patient's condition is not what it should be on your second visit you can easily order the change. In all cases as soon as the temperature falls to normal and the skin becomes moist *aconitine should be dropped.* Quite often we shall find patients who seem to be entirely well after three days with the exception of an annoying cough which persists for some minutes, the result being the expectoration of a tenacious phlegm. Helenin, gr. 1-3, emetine, gr. 1-67, hyoscyamine, gr. 1-250, every three hours with a little hot water will prove specific. In addition have the patient dissolve a gr. 1-6 tablet of potass. bichromate upon the tongue several times daily.

As soon as the acute symptoms have subsided pay particular attention to the nares and give your patient an alterative tonic. I have used intranasally for some time—after flushing with an alkaline antiseptic—a solution of camphor and menthol in fluid petrolatum. Under the name of "campho-menthol" this can be obtained easily and, if used several times daily with an oil atomizer will give very prompt and satisfactory results. There is no reason why this preparation should not be used from the first; if it is, spray the fauces throughly, instructing the child to breath deeply at the same time.

Local Alkaline Antiseptics

The liq. antisepticus of the U. S. P. is one of the best alkaline antiseptics for use prior to applying the oily solution, gargling, etc., but I have obtained especially good results from a solution of a tablet which contains benzo-boric acid, the silicofluoride, sulphocarbolate and bisulphate of sodium with thymol, menthol, hydrastin, and camphor. This tablet (known as menthol comp., Buckley) is easily carried and one dissolved in eight ounces of water forms a standard solution. In septic conditions use two tablets to twelve ounces and add *always* one ounce of glycerin to each six of water.

As soon as the child is ready to be discharged order the use of these two solutions morning noon and night for some time and place him on the arsenates of iron, quinine and strychnine, with nuclein, one to two tablets according to age, after each meal. Hydrastin, gr. 1-6, may be added for the first two weeks. If streptococci or staphylococci are persistent in the sputum it has been found advantageous to exhibit every four hours calcium iodized, gr. 1, mercury biniodide, gr. 1-67, strychnine arsenate, gr. 1-67, phytolaccin, gr. 1-6, nuclein, gr. 2. This tablet is known as calcium iodized and mercury comp. with nuclein. The use of this formula will almost positively prevent subsequent glandular involvement. When used, the triple arsenates are dropped, being given again in place of the other formula after two weeks.

Treatment of the Strumous Child

Rachitic or strumous children may be given calcium lactophosphate, gr. 1-3. Thorough elimination must be maintained, the child being sponged from head to foot at least three times weekly. Salines will keep bowels and kidneys active. Under these measures those children who hitherto "have always been catching cold" will pass

through the dangerous season entirely unaffected.

Some Additional Suggestions

In severe cases where secretions are abundant and the expectoration scanty despite treatment push lobelin and pilocarpine to effect, guarding against depression by moderate doses of strychnine. Have the room kept filled with medicated steam and every hour or two apply compresses wrung out of hot epsom salt solution to the throat and upper thorax.

Extreme edema of the mucosa will yield to spraying or swabbing with a 1 to 5000 solution of adrenalin chloride.

A few doses of camphor monobromide and cypripedin will quiet a dry, "racking," nervous cough and, if gr. 1-12 of codeine be added a quiet sleep will usually follow.

Eucalyptol (gtt. 1-2) or spt. turpentine (gtt. 1-2) on sugar are excellent stimulant antiseptics. In threatened capillary bronchitis give antimony arsenate (gr. 1-67) with scillitin or sanguinarine, always watching the heart and pushing camphor with cactin at first sign of cardiac wavering.

In many cases there is a malarial undercurrent; the exhibition of quinine arsenate will suggest itself; gr. 1-6 four times daily will prove efficient.

Never forget that a full stomach is undesirable in acute bronchial catarrh; give small quantities of highly nutritious easily assimilated food often. Fruit juices ad lib. Barley water is the best beverage. Impress upon the mother or nurse the importance of an active skin. If possible see the first sponging given and teach the value of brisk rubbing afterwards.

If you do not find your patient responding to medication as he should, take the trouble to see whether everything which should have been done *has* been. Many a case "hung on" because the bowel has not been thoroughly emptied, or the nares and fauces have been only *half* cleansed. *Positive results will almost invariably follow positive treatment—positively carried out.*

Just a Final Word

A final word. Whenever you have occasion to treat a child with acute bronchitis make the case an object lesson and talk plainly to the mother, explaining to her, how and why children contract the disease and how she may lessen the danger. Above all, teach her the folly of "home treatment"—the use of teas, syrups and patent nostrums. Explain to her the few simple steps she may take should her children "catch cold," and urge her to lose no time in sending for medical assistance. If it is apparent that you can control coughs and colds and your clientele understand that even such "common diseases" may prove fatal in one way or another, rest assured you will be kept busy. Moreover, you will get your cases early and can feel assured of continuous success.

AS a profession we have erred in the past in giving too much medicine; we err nowadays possibly in giving too little. With the development of modern pharmacology and the decline of crude empiricism; with the tendency to give a single drug to meet definite indications; with the revival of esthetic medication and the abandonment of nauseous polypharmacy, drugs are recovering their legitimate place in the therapeutic armamentarium even of the most skeptically inclined.—Alfred C. Croftan, in the preface to his new "Clinical Therapeutics."

THE TREATMENT OF EPILEPSY

The record of an extensive sanitarium experience, indicating, by individual cases, the importance of rational methods suited to each patient's condition

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THE treatment of epilepsy varies with the patient, with the peculiar individual manifestations, and is modified by whatever previous treatment the patient may have received. No routine treatment is used; no two cases are treated exactly alike and the treatment of the same patient varies from time to time. Whatever measure of success has followed our efforts we claim to be due not to secret methods but to what we call our "system" of treating chronic diseases, a system which was not discovered by myself, nor is it exclusive to my work, but is compiled from methods which have been in vogue for centuries by various successful physicians and surgeons. In condensed form this "system" is as follows:

I. Find the cause of the disease.

II. Find the remedy for the disease.

III. Supply the needed medicines in their purest and most effective form.

IV. Insist upon it that the treatment be followed out as directed.

V. Direct the patient's diet and habits.

VI. Collect your fees.

Before you can determine upon your course of treatment you must thoroughly investigate your patient. The possible causes of epilepsy are so many, so widely different and so obscure in many cases that only the most searching cross examination will reveal any clue. Quite frequently no apparent cause can be determined. Very often your questionings may lead to the uncovering of a family skeleton, and yet your duty to your patient demands that you get at all these things, while your honor as a gentleman requires that you keep your silence. Too much modesty in these matters has caused many physicians to miss the most essential points in these cases. Some years ago I was consulted regarding the daughter of a man of national renown as a "soldier and statesman." After listening to the mother's recital of the girl's condition (epilepsy) I asked amongst other things what was known as to the girl having practised masturbation. Instantly the mother flew into a rage, left my office and told several of her friends that I was "nasty" and "mean," "anything but a gentleman," etc., and reviled me as only an enraged woman can. To my surprise the daughter called on me a few days later and told me that of all the many doctors who had been consulted regarding her case I was the only one who had inquired into her sexual life, and that I had struck her trouble "right on the head." Furthermore I learned that the whole family, father, mother and children, were moral degenerates and sexual perverts.

In questioning as to the family history ask about the same questions you do in making a life insurance examination, and when you find any traces of hereditary neurotic or debilitating diseases follow up these clues with special questions. The majority of epileptics present an element of ancestral epilepsy, tuberculosis, insanity, alcoholism or some other form of nervous disease. Next investigate the patient's personal history, the sicknesses of infancy, teething troubles, spasms, etc. Was the patient a strong and healthy baby, or a weak and puny one? What eruptive fevers, digestive troubles, constitutional weaknesses, etc., were encountered during childhood? At what age did pubescence appear

and what troubles incident thereto? What pernicious habit has the patient as to diet, stimulants, sleep, sexually or otherwise?

Having secured all possible data as to the history of the patient, there comes the history of the disease. When did the first attack occur and what were its phenomena, premonitory, active and post? If possible have someone who has seen the patient in an attack describe it. Then question as to premonitory warnings, symptoms or aura, method of onset, appearance and actions of patient during and after an attack. How often do attacks occur; time of day or night; single, multiple or series; type of seizures; and when was the last attack? What is the patient's mental condition and how much of an education?

The Physical Examinations Important

Now comes the personal or physical examination of the patient. Epilepsy has been in various cases attributed to nearly every reflex in the body and it is well in conducting this examination to examine every organ of the body. In cases which had resisted many kinds of drug treatment I have seen cures rapidly follow the removal of catarrhal disease of the ear, eyestrain, decayed teeth; nasal polypi and hypertrophied turbinates, gastric and intestinal irritations, uterine flexions and versions, phimosis, adhesions of the clitoris, and rectal fistula. I have seen one case develop following the healing of a varicose ulcer of the leg, and quite a few that were due to trauma of the cranial vault. In view of this multiplicity of possible causes make a thorough search for them and do not let any false modesty on your part prevent you from exploring all organs, cavities or localities in which a cause might be hidden.

Study your patient, study his individual sickness and study your remedies. To do all this satisfactorily will require more than the ordinary knowledge of epilepsy and call for more help than can be secured from the usual text-books on medicine or nervous diseases. To those especially interested I would recommend the perusal of Spratling's book on Epilepsy; Dr. Spratling has charge of the New York colony for the treatment of epileptics, the Craig Colony, and knows enough about epilepsy to justify him in writing a book upon the subject.

Now I want to illustrate the wide variance in my treament of these patients by a few cases:

Some Sample Cases of Epilepsy

Case I. This boy who is now ten years old was first brought to me when two years old. His mother said he was troubled with "spells," and her description of these spells gave a good picture of epilepsy. In children under three years of age epilepsy may be due to hereditary (from an epileptic), alcoholic or neurotic ancestry, to inherited syphilis, to injuries incident to birth, to the eruptive fevers, irritation of dentition, whooping-cough, spasms from intestinal irritation, and to fright or shock.

This baby was free from syphilitic taint, had had no sickness of any kind except these two or three "spells" and had no phimosis or other discoverable source of peripheral irritation. But he has an alcoholic ancestry on both sides; an uncle has that peculiar psychic make-up which we designate as "foolish," yet not mentally incompetent; several of the aunts are emotional and even hysterical in their disposition. This combination of alcoholism, mental incapacity, and hysteria forms a first-class foundation for the development of epilepsy. In the absence of any more satisfactory evidence this boy's trouble was ascribed to dissimilar heredity, that is, it developed from ancestral neurotic conditions other than epilepsy.

Sodium Bromide Substituted for Salt

As to treatment, when first seen, at the age of two years, the child was given two grains of sodium bromide every morning, noon and night, the dry powder being sprinkled over his food in place of table salt. Over twenty years ago I gave publicity to the idea of substituting bromide of soda for common table salt, placing it in the salt cellar or shaker and letting patients use it on their food as freely as they would the sodium chloride. The method is still

in vogue and has been dignified by the name of "hypochlorization." My idea was to provide a simple means of getting the bromide into the system, but Toulouse and Richet claim an additional advantage in the withdrawal of the choride of sodium. The full hypochlorization treatment demands the complete absence of salt from the patient's food and is too impracticable for ordinary use. This boy has never had an attack since he took his first dose of medicine, is physically strong and mentally bright,—a good illustration of what can be accomplished by the early treatment of these cases.

Many of the laity and not a few physicians believe that children outgrow epilepsy, but where one "outgrows" the disease there are a hundred who do not. The natural tendency of epilepsy is to an aggravation, to chronicity, to epileptic imbecility or insanity, and the physician who advocates the do-nothing course in these cases is promoting the mentally incompetent class of our population.

Epilepsy Among the Negroes

Case II. This little colored girl illustrates the vagaries of the practice of medicine. The records of public institutions and of private practicians show that epilepsy prevails amongst the negroes to a greater proportion than amongst the Caucasians. I practised medicine and lived for twenty years in a town containing from 30,000 to 50,000 negroes and for two years among the natives of Central Africa, yet this little girl is the first and only case of epilepsy I have encountered in a negro, and singularly enough her case is due to traumatism. My experience does not controvert that of others, it is merely one of the vagaries of medical practice. The present great prevalence of epilepsy amongst the negroes is due largely to the condition into which these people have fallen since the abolition of slavery. As slaves they were properly housed, clothed, fed and worked; today the vast bulk of them are ignorant and helpless, poorly housed, clad in rags, half starved and do as little work as possible. Disease and unrestrained appetites have brought about a degeneration in the American negro which would appall his African brothers, and which demands the careful consideration of his Caucasian fellow citizen.

As I said this case was due to trauma; when a few months old her nurse let her fall against the corner of a sewing machine causing a depression of the cranial vault which was plainly perceptible to sight and touch. Prior to coming to the sanitarium she had been through several courses of treatment varying from magnetic healing to stupefying doses of bromides; physicians and healers all seemed to have ignored or not to have noticed the depressed cranial bone which was irritating the brain. A trephining operation removed the offending bone and a mild course of bromide of soda effectually broke up the epileptic habit which had become established.

Case III. This boy, ten years old presents a combination of hereditary and exciting causes. His ancestry shows tubercular and neurotic elements, his personal history shows convulsions during first dentition and at all times since dentition an abnormally large appetite, a condition of gluttony. Hence we are not at all surprised that about a year ago he developed epilepsy. This case is typical of most cases of epilepsy coming for treatment, a tainted ancestry and a gluttonous appetite which has never been curbed. The family physician in this instance told the parents that this trouble was merely "nervous spells" due to overstudy and that the boy would outgrow them if taken from school. It took several hard convulsive attacks to awaken the parents from their lethargy.

The Diet in Epilepsy

By way of treatment I put the patient upon a limited diet, both as to quantity and quality. Diet is a most important factor in the treatment of epilepsy. The universally accepted rule today is to exclude all foods which are difficult of digestion. We exclude pork and veal, all fried foods of whatsoever kind, all cake and pastry, all berries having small hard seeds and all alcoholic

drinks. The food should be given in three meals only per day and at regular intervals. There should be no lunching between meals. The list of foods best suited for epileptics includes:

For breakfast 7:00 to 8:00 a. m., grapes, oranges, grape fruit, apples, peaches, pears, prunes or plums and a small quantity of thoroughly cooked cereal food; eggs cooked as the patient likes *except fried;* toast and zwieback; wheat-bread twenty-four hours old and any other kind of cold bread, biscuit or rolls may be eaten. Corn-bread is the only kind that may be eaten warm. Pancakes, etc., are forbidden. The best drink is milk; tea, coffee and chocolate are tolerated, not advised.

For dinner, noon, oysters and most fish, except salmon, may be eaten cooked any way *except fried.* Soup is a good thing. The question of meats is a mooted one; our practice has been to allow meat once only per day, and that at noon. My patients have any meat they desire except pork and veal, and cooked any way they like *except fried.* In the line of vegetables anything and everything is permissible except cabbage and cucumbers, and may be prepared any way *except fried.* For desserts give your patient simple puddings such as bread, rice, tapioca, custard, sago; also the various gelatine dishes.

For supper, 6:00 p. m. *sharp,* let the patient eat a light supper of any of the foods allowed at breakfast.

In examining your patient you should investigate the matter of previous diet, and any gastric idiosyncrasy should be heeded. Supper must be the final meal of the day; it is best for the epileptic to go to sleep with an empty stomach.

Use Intestinal Antiseptics

Having placed this boy's alimental economy upon a healthful basis we gave him intestinal antiseptics to prevent toxic effects. To overcome the epileptic habit he was given two grains of sodium bromide with fifteen minims of fluid extract of solanum. For three months he had no attacks, then there came one *grand mal,* one *petit mal* and one dizzy spell; the dose of each remedy was doubled and since then no more attacks. The boy is to go back to school next term and will eventually recover.

Case IV. This girl aged ten was brought to me two years ago with a history of epileptic attacks occurring at irregular intervals and dating from a severe fright received some months prior to my seeing her. No other cause discovered. Experience has demonstrated that one of the best remedies in epilepsy due to fright is ignatia in exceedingly minute doses. The child was given Ignatia 3x, equivalent to 1-1000 drop of the tincture and has never had an attack since beginning the treatment.

A Case of Nocturnal Epilepsy

Case V. Here is another girl who has suffered from nocturnal epilepsy since early infancy. Her family history presents one epileptic cousin, several cases of cancer, but no pulmonary tuberculosis. Some of the cancers were of the cutaneous form and evidently tubercular. Aside from her epilepsy she is in perfect health, has no bad habits or abnormal appetites. My experience has been that nocturnal epilepsy is easier to eradicate than the diurnal form. This girl was given a mixture of: soda bromide, drs. 4; choral hydrate, drs. 2; tr. digitalis, min. 10, aqua dist. q. s., ozs. 4. M. "Shake" label. Sig. One teaspoonful every four hours when awake.

This prescription makes a perfect solution but I always put a "shake" label on all mixtures containing poisonous drugs; the agitation does no harm and averts any danger that might follow irregular doses due to unlooked for separation or precipitation.

Case VI. The several patients presented so far have all been children. Let us now look into a few adult cases. This patient is a married woman who came under my care three years ago. Her epilepsy developed some six years ago. The first attack was one of *grand mal* which came during the menstrual period. She was then about twenty years old and had been menstruating since fourteen years of age. The family physician when called upon gave her a

treatment which was useless, as the attacks recurred at every menstrual period and occasionally oftener. After a year of home treatment she was taken and operated upon by a gynecologist. What the operation was no one knows; there are no marks, signs or evidences of any cutting, and the gynecologist has so far refused to divulge. It was probably a curetment. Notwithstanding the operation the epilepsy continued. Her family physician advised marriage, so she married—without benefit to herself or anyone else. The case was transferred to another physician who advised pregnancy. She became pregnant and the epilepsy became aggravated. Pregnancy has absolutely no beneficial effect in an epileptic and the child so born is sure to develop into an epileptic or other mental incompetent, thus becoming a menace and a burden to the public.

Forbid Marriage of Epileptics

A physician who advises marriage or pregnancy in a case of epilepsy is either most damnably ignorant or criminally careless of his responsibilities as a physician. Fortunately this woman aborted, thus nullifying the effects of the advice given her and relieving her of a source of irritation. In many states laws have been enacted prohibiting the marriage of epileptics, but unfortunately no means have been provided whereby licensing officials or marriage-performing ministers are supplied with lists of the epileptics.

What medical treatment this patient had received prior to coming to me I do not know. Her family history shows two epileptic cousins, a cancerous grandmother and an alcoholic father,—a good foundation for the development of most any nervous disease. There is a well-founded suspicion of masturbation and premarital fornication although the patient denies both faults. This patient was also a chocolate fiend, eating enormous quantities of caramels, creams, fudges and cake. Having the uterine element eliminated from the case the diet was looked after, chocolate in any and all forms was prohibited and the patient put upon a rigid adherence to the diet list mentioned in discussing the third case. At the time this case came to me I was very busy and to tide her over until I had time to thoroughly study her case I put her on a "blanket" treatment of sodium bromide with amyl nitrite to ward off and abort any impending attacks.

This treatment was persisted in for two years without any attacks and the patient was ready to be discharged. While going through the "tapering-off" period she suffered what was evidently a purely psychic attack. Her husband came home at supper time (6:30 p. m.) and found her sitting by the window dressed for bed. When asked what was the matter she said she did not know; that the last she remembered was washing some dishes after dinner and she had no knowledge of what she had done from then until her husband came home and roused her from her mental condition. Other folks in the house had neither seen nor heard anything unusual and she presented none of the appearances she always had after previous attacks. There was no disorder about the apartments,—in fact she had done some fancy work during the afternoon besides changing her clothing and arranging her hair in long plaits. Without witnesses and with only this evidence the attack was diagnosed as a psychic one and the patient put back on the full treatment for another year. This year has now elapsed; no history of any attack of any kind and she is again going through the "tapering-off" process with every prospect of a successful outcome. [Later.—A slight relapse has occurred at the menstrual period.]

A Case Due to Autotoxemia

Case VII. An unusually fine specimen of physical manhood; raised on a farm, family history clean as can be; personal history A No. 1; epilepsy developed some eight years ago; no regular treatment, as attacks were nocturnal and the family suppressed all information about them, being ignorant of the probabilities of cure, and looking upon them rather lightly any-

way. This patient is evidently a purely idiopathic epileptic, aggravated or developed by masturbation and a voracious appetite. Relatives say he will eat as much as three or four ordinary men. He confesses to an overly modest indulgence in self abuse. I am inclined to blame the gastric indulgence fully as much as the penile. Thousands of men masturbate without mental or physical damage but very few can abuse their alimentary canal without having trouble develop very soon, either as dyspepsia, indigestion or some form of toxemia.

This man's toxemia has taken on the epileptic form. He tells me he took a course of treatment, by mail or express, for a year and a half and had no attacks while taking the medicine. He thought he was well enough, and to save a few dollars stopped the treatment. From his description of the taste, odor and general appearance of the medicine it was evidently some preparation of potassum bromide with adjuvants, correctives and vehicle. By way of treatment I toned down some urethral irritation which existed; cleaned out the bowels thoroughly and notified his colon, sigmoid and rectum to keep clean; placed him upon the restricted diet and started him on a solution of sodium bromide in fld. ext. solanum. Incidentally he was required to pay in advance for the full course of two years' treatment and I am thus assured he will not stop the treatment too soon to save a few dollars.

Attacks Due to Mental Excitement

Case VIII. This man, aged thirty-five, developed about three years ago an epilepsy dependent upon mental excitement. His family and personal history are absolutely clean. A thorough physical examination failed to discover anything which might act as a reflex excuse for the epilepsy. It was noticed that the attacks come on only after mental excitement due to anger or aggravation, that there was no muscular convulsion but rather a psychic form of attack followed by a period of extreme exhaustion, lasting from half an hour to a day or more. This condition pointed to agaricus as the remedy. It was given him in the third potency but had no effect; then we tried the thirtieth and the effects were most satisfactory. To some of my friends this may seem nonsensical. To realize the magnitude of the dose take the figure 1 and add thirty zeros behind it. I will admit that it is beyond human comprehension, but so are many other things connected with medicine. This patient has taken agaricus 30x for about eighteen months, and nothing else; he has had no attacks during that time although the conditions surrounding him are unchanged.

Harmful Effects of Bromides

Case IX. This young man is thirty years of age, has a tubercular family history, had spasms when an infant and from the time he was seven or eight years old up to puberty he had "dizzy spells." Wherever you find a person suffering from regularly recurring dizzy spells, muscular twitchings, aphasia or similar nervous phenomena, look out for epilepsy, either plainly developed or in one of its more obscure or masked forms. At sixteen there came the first *grand mal* attack, and since then they have occurred about every two or three weeks. During several years past he has been under different treatments from various physicians. He had been circumcised, has had hypertrophied turbinates removed and errors of refraction corrected, piles have been cured and an irritated urethra toned down. When he came to me he was so saturated with the triple bromides that his mental faculties were dulled, his stomach deranged and there was an elegant bromine eruption. And notwithstanding all this his attacks continued right along; the longest interval between any of them during all the time of these different treatments being three weeks. It was evident the bromides were doing no good and some harm. They were stopped immediately and their place taken by the fluid extracts of solanum in half-dram doses. The solanum was given to tide over matters until the bromides could be eliminated

and their effects overcome, but the patient's condition improved so that the remedy was continued. After three months there came one *grand mal* attack. Investigation developed the fact that he had not been taking his medicines as directed, that his "fond parents and loving friends" had neglected this most vital part of the treatment and that he had been getting only one-half the dose prescribed, and very irregularly at that. By this time the effects of the bromides had been so far overcome that it became possible to judge of the epilepsy without any bromide complications or adulterations. The phenomena of the case pointed to hydrocyanic acid as the remedy and the patient is *now* taking hydrocyanide of iron and solanum with every indication of a satisfactory outcome.

Use Any Remedy Promising Good

From the presentation of these few cases it will be seen that my treatment of epilepsy varies widely, that I do not hesitate to appropriate to my use any remedy that promises to do good, regardless of its origin or by what school or pathy it is regularly used. I maintain and exercise the right to use any remedy on earth, or elsewhere, that will accomplish my purpose. And yet, notwithstanding the great multiplicity of remedies, it will be found in the majority of epileptics that bromine in some one of its varied forms is the most dependable. The bromides have been so long abused by physicians who do not understand their proper administration that they have justly fallen into disrepute in many circles, yet I believe that the small dose of bromine in connection with appropriate adjuvants and correctives forms the most acceptable method of treatment in the majority of epileptics. The choice of these adjuvants and correctives depends entirely upon the individual symptoms of the case, as does also the selection of the particular bromine preparation.

The treatment of epilepsy is divided into three stages: First, the adjustment stage, in which the most suitable remedy is determined upon, the dose regulated and its frequency of administration decided; second, the continuous course during which this remedy is administrated as decided upon until the patient has gone two years without an attack, or until some untoward event renders a change necessary; third, the cessation or "tapering-off" period lasting from one to three months during which time the drugs are gradually withdrawn. My experience has been that occasionally severe nervous and other symptoms follow the sudden cessation of the remedies. During this period the patient should be as carefully watched as during the adjustment stage and any irregularities which may appear should be promptly attended to.

There is always the possibility and probability of sporadic attacks in the epileptic who has been cured, i. e., who has gone two years without an attack. It is only fair to presume that a patient whose system presents a favorable field for the development of epilepsy and who has once suffered from that disease, would have occasional attacks under certain exciting conditions. Hence the post-epileptic must be eternally on guard against those causes which gave rise to the original attacks. Gourmandizing, sexual excesses and mental strain or excitement, must be avoided; dysmenorrhea and other nerve wrecking troubles must be promptly relieved. I have one patient who about every two or three years requires uterine curetment, otherwise her dysmenorrhea reaches a stage where the irritation brings on an explosion. Another patient has to have new lenses adjusted to the eyes every year or so. All patients who pass from my care as cured are kept under observation and are supplied with a small quantity of their remedy and instructed to use it upon the slightest provocation indicative of an impending attack.

During the course of the treatment there may develop some intercurrent disease and I have an understanding that I am to supervise the treatment of any such sickness. Patients are advised to continue the limited diet after their cure is completed;

it acts as a prophylactic against relapse and is sufficiently nourishing for the needs of any individual in any walk of life.

Value of Outdoor Life

As an adjuvant to any and all forms of drug treatment I have found outdoor living most decidedly beneficial. If possible have the patient live in a tent all the time, day and night, winter and summer, rain or shine. This can be done with comfort if you provide a good substantial duck tent with floor and fly, located in a sheltered spot where there is good drainage. During cold weather a small air-tight stove will furnish all the warmth desired. Where tent life is impossible have the patient sleep in a room with windows wide open but protected from rain and snow by an awning. The days can be spent in outdoor work and amusements.

In nearly every case the physician is consulted regarding the education of the epileptic. There is no doubt but that the victim of epilepsy should be given an education and trained to some trade. In early life the kindergarten method is a most efficient means of directing the mind into correct channels. In later years private tuition at home or in a special school is better than public-school attendance. The patient is less apt to be irritated by other children, and other children are less apt to be influenced by the epileptic. There is no doubt but what the presence of an epileptic child in a public schoolroom is demoralizing. When old enough to comprehend the work the patient should be given a course in manual training or industrial work. Keeping the mind and hands busy in proper channels has a wonderfully beneficial effect and is a decided adjuvant to any form of treatment.

As to a prognosis, I make none whatever; I do not guarantee a cure in any case; I do not promise any benefit whatever. After making a thorough examination I tell what I think the prospects are but I do not promise or guarantee anything. Patients and their relatives are told what the percentage of cures is in similar cases, after which they are left to draw their own conclusions. Every patient accepted for treatment *must* continue treatment until two years have passed without an attack, which usually means two and one half years of treatment. The right is reserved to withdraw from any case where it is manifest that my efforts have done no good and there is no prospect of doing good. The responsibility of taking treatment must rest entirely with the patients and their relatives, and whether it is worth the while is a matter for their decision, and their's alone.

Solanine Preferred to Solanum

In discussing the treatment of several of the above cases mention is made of the fluid extract of solanum. This was abandoned some time ago in favor of a solid extract, thus elimenating alcohol from any influence upon the patient. But the solid extract had to be made to order and was too expensive. Then came the alkaloid solanine which fills the bill to a dot and which I am now using in several cases with satisfaction to all concerned.

VENESECTION: ITS THERAPEUTIC VALUE

Is Venesection one of the lost arts? Was it condemned too soon? Has it therapeutic value enough to warrant its use now? The author answers these questions

By W. FOREST DUTTON, M. D., Walkers Mills, Pennsylvania

THE term "bloodletting" includes all methods of withdrawing blood from the animal or human body for therapeutic purposes. The withdrawal of blood from a large vein or artery, so as to reduce the general mass of blood, is known as "general bloodletting." The abstraction of blood from a part or its immediate neighborhood (i. e. from the capillaries) by leeching, scarification, or cupping, is termed "local bloodletting."

Early and Reckless Venesection

Phlebotomy and venesection are terms restricted to bleeding from a vein. References in history show that venesection was used before the time of Hippocrates, who gives it a prominent place as a valuable therapeutic agent. In reading some of the best works of the older practicians and literature on venesection, it is noted that venesection has been employed at times in all forms of disease. It was used also in a reckless and most extravagant manner. It appears that the greatest use made of bleeding was from the sixteenth to the middle of the nineteenth century.

The older writers, Burton, Dover, Galen, and Haen, speak of extracting large quantities of blood and frequently repeated. Amounts of 5,000 Gms. in a period of several days for a pleurisy; in a case of pericarditis 700, 750, 960, 1,200 Gms. were taken; in a case of inflammatory rheumatism 20 pounds were taken during an attack.

The following citations are from reports of one hundred typical cases selected from six hundred cases that cover a period of three years' personal experimentation and clinical research:

CASE 1.—W. N., female, age 34, weight 165, married, came under my service Aug. 16, 1903. The patient had the usual diseases of childhood and simple continued fever in 1902.

Clinical History.—The patient was in the last of the second week of disease, when I was called. The usual symptoms indicating typhoid were elicited, which the diazo-reaction verified. The fever and pulse were not exaggerated. Nocturnal delirium, stupor, subsultus tendinum and carphologia were marked. On the morning of the nineteenth day I was called about 3 o'clock and found the patient bleeding profusely from the nares. The hemorrhage was stopped by plugging the nares with linen. The patient lost approximately eighteen ounces of blood. The temperature dropped rapidly to 98° F., although the temperature arose to 102.5° F. on the twentieth and the day following to 104° F., the general condition of the patient improved and continued to improve from day to day. The tenth day after the hemorrhage, on the twenty-ninth of the disease, the temperature was normal.

Venesection in a Typhoid Case

CASE 2.—M. M., female, age 24, gave a history of the diseases of childhood, and syphilitic infection at the age of 18.

Clinical History.—Diagnosis from manifest symptoms was typhoid, and was confirmed by Widal test and diazo-reaction. Patient was allowed by mother to use commode and assist herself *ad libitum*.

I was called one afternoon in the third week of the disease and found patient having a hemorrhage from intestines, nares and ears. The pulse was full and bounding. I immediately opened median basilic vein

and bled the patient of 16 ounces. Hemorrhages ceased and condition began to improve immediately. Patient was convalescent in twelve days from time of venesection and made an uneventful recovery.

Cases 2 to 20 were typhoid and bled in the second week of the disease and all made uneventful recoveries. The usual medical treatment was adhered to in all cases.

A Troublesome Case of Syphilis

Case 21.—E. B., age 20, single, miner, came under my service October 21, 1903. Patient had usual diseases of childhood. His previous health had been good. He was a man of exceptional physical strength.

Clinical History.—Patient stated that the chancre made its appearance about 35 days after coitus. Rheumatoid pains, headache, neuralgia; induration and enlargement of lymphatic glands rapidly followed; cutaneous manifestations were in evidence early. The protoiodide of mercury was administered three times daily; beginning with 1-3 grain, it was gradually increased until patient was getting 2 grains three times daily at the end of two months without noticeable improvement. Mercury bichloride 1-5 grain was injected into gluteal muscles once weekly for six weeks without any perceptible impression. Feb. 10, 1904, the median basilic vein was opened and 18 ounces of blood withdrawn. Patient was given an enema of 2 quarts of albumin water. He did not show any signs of weakness. There was an increase in pulse rate from 72 to 84. On Feb. 11, I began the administration of the protoiodide of mercury in 1-3 grain doses three times daily, and increased 1-3 grain every second day. At the end of the sixth week after venesection the patient had gained in weight, mucous patches and eruptions had disappeared and patient's general condition was much improved. Treatment was continued for one year. No manifestation of syphilis has appeared.

Cases 22-23-25, were primary syphilis. Venesection was done early and with gratifying results.

Case 26.— G. P. F. W., male, age 45, merchant, had always enjoyed good health except that he "had the trouble with head since childhood." He stated that mother had same trouble, hence, we may infer that the trouble was hereditary.

Clinical History.—A few days preceding the attack the patient complained of a feeling of heaviness over the eyes, indigestion, and mental depression. The attack was generally ushered in by chilliness, nausea, intolerance of light, ringing in the ears, vertigo, intense pain extending over left side of head. Sound greatly irritated patient. There was at times disturbances of circulation. Disease was much aggravated by domestic trouble.

Treatment.—Mentholated pencils, cannabis indica, gelsemium, morphine and atropine, phenacetin, caffeine citrate, monobromide of camphor, etc., were used alone and in combination to no effect. Fourteen ounces of blood were withdrawn from median basilic and condition was relieved. Six months after the patient began to have attacks, and sixteen ounces were extracted. The patient has been under observation for two years and has had no recurrence of attack.

How It Acts in Alcoholism

Case 90.—D. D., male, age 30, bartender; had diseases of childhood, typhoid fever and syphilis; came under my service April 5, 1905. Patient had been on a debauch for four weeks. There was inability to retain food in stomach, insomnia, tremor, intense excitement soon followed by illusions and hallucinations characteristic of delirium tremens. The bowels were evacuated by warm saline enemata. Morphine, gr. 1-4, and atropine, gr. 1-100, were administered hypodermically every three hours for twenty-four hours, without any effect. Chloral hydrate was then administered in 30-grain doses every two hours for twenty-four hours without any effect. Hyoscine hydrobromide was used the following twenty-four hours with no improvement whatever. Pulse was 95

full and bounding; eighteen ounces of blood were withdrawn and an intravenous infusion of sixteen ounces of saline was used. The pulse increased to 100, it rapidly became slower and soft and compressible. Chloral was then administered in 15-grain doses every two hours for three doses and patient passed into quiet sleep, and remained so for ten hours. The following day 20 grains of trional were given; on the sixth day hot liquid diet was administered by the mouth and strychnine nitrate, 1-3 grain, and atropine sulphate, 1-100 grain, every four hours. April 15, the patient was able to resume work.

Cases 91-92 were those of delirium tremens and were bled at once, and with usual treatment the course of disease was greatly modified.

Venesection for Varicose Veins

Case 93.—A. D., male, Italian, age 45, laborer; early history good; had varicose veins affecting the legs for 15 years, and came under my service July 30, 1905.

Clinical History.—On May 1, patient received a blow on the leg at the middle third external to tibia. All endeavors made to heal by home treatment. My treatment was palliative, directed toward the general health, the cleansing of the ulcer with hydrogen peroxide and bichloride solution 1-5000, and the application of a dusting powder composed of bismuth subnitrate two parts and acetanilid one part. I bandaged limb with flannel roller, and had limb elevated for rest. This treatment was continued for one month without any improvement. Then in addition to the above, extract of hamamelis was administered in 20-drop doses every four hours. The ulcer was curetted thoroughly, hoping to stimulate granulations, though it failed to do so. September 15, fourteen ounces of blood were taken from external saphenous vein below the ulcer. The treatment was continued as before. The ulcer began to granulate and on October 8, the ulcer had filled. On October 30, the ulcer had healed entirely, and the patient was discharged.

Cases 94-95 were varicose ulcers in women as result of rupture of small veins; twelve ounces of blood were withdrawn. The patients made uneventful recoveries.

Case 96.—A. S., male, Polish, age 27, miner; had diseases of childhood and varioloid. He had used alcoholic beverages freely. He came under my service January 5, 1904.

Good Effects in Pneumonia

Clinical History.—Patient had been in attendance at a Polish wedding and had chill on evening of January 3. The patient on morning of January 5 had a temperature of 104.5° F.; pulse was rapid, strong and full, sharp pain near right nipple; respirations 45 per minute; a grunting interrupted speech; rusty sputum; mahogany blush; herpes; diminished chlorides; pronounced delirium. The two lower right lobes were solidified. Jan. 6, in the afternoon, as the attendant left the room, the patient got out of bed and out of doors and wandered aimlessly around in the snow, where he was found one-half hour later, I was called immediately and found patient with temperature 105.2° F.; pulse 120, marked dyspnea, and superficial blood vessels were standing out like whip cords. Tincture of aconite, 4 drops; tincture of digitalis, 5 drops, and strychnine sulphate 1-30 grain, were administered, and one-half hour thereafter sixteen ounces of blood were withdrawn from median basilic vein. Six hours after venesection the temperature was 103° F.; pulse 94, strong and full; dyspnea and pain not marked; delirium absent. Strychnia, whisky and quinine, with an expectorant were administered. The course was very favorable. The crisis occurred on the ninth day of the disease and convalescence was rapid.

Cases 97-100 were of lobar pneumonia; bled in the first stage of the disease, all within 24 hours after chill. The heart was always relieved and dyspnea mild. Venesection always exerted favorable influence on general condition of patient.

In addition to the above cases I have used venesection in eclampsia, acute heart

disease, intense pulmonary edema, asthma, pleuritis, cerebral hyperemia, arteriosclerosis, obesity, exophthalmos, asphyxia, acute parenchymatous nephritis, uremic intoxication, varicose veins, jaundice, delirium tremens, leptomeningitis, puerperal fever, etc., with the most favorable results.

Indications for venesection are: (a) excessive vascular tension; (b) physiological inactivity of tissues and organs; (c) a toxic condition of blood.

Where and How Performed

The operation may be performed upon the median basilic, median cephalic, external jugular, internal saphenous where it rests on tibia above malleolus, vein from mastoid foramen, vein of nares, vein under the tongue; owing to object in view. If the veins are obscured in the region of injury or disease, leeches may be used to start the flow and then cups or vacuum pump is used to abstract the desired amount.

The median cephalic is to be preferred to the median basilic because of the proximity of the brachial artery which if injured may give rise to an arterio-venous aneurism. The flow is slower from the median cephalic, thus enabling one when operating to get a better gauge of the pulse. Care should be taken to avoid division of the branches of cutaneous nerve, as it may give rise to traumatic neuralgia (Tillaux).

The field of operation is rendered aseptic, the vessel incised, and blood withdrawn in accordance with the condition of the patient. Should the median basilic or median cephalic be selected, a bandage is tied around arm above the elbow. The patient is instructed to grasp some object, or clutch the hand tightly. Should the patient be somewhat frightened or nervous, a local anesthetic may be used—ethyl chloride or adrenalin preferred.

The operator stands with his back to the patient and rests arm against his side, in so doing preventing any movement or injury to neighboring parts. The incision is made, blood withdrawn, bandage removed, and wound dressed aseptically.

It will be well to digress here to say that all operations are not performed with the patient in the upright position. In a plethoric individual the upright or sitting posture is adhered to; in a septic case, the recumbent position; in an asthenic case, where blood is withdrawn and a saline infusion given, the lower part of the body is somewhat elevated above the shoulders.

Anders says that in typhoid fever, "intestinal hemorrhage sometimes exerts a favorable influence, stupor and delirium giving place to consciousness." In the same paper he also states that "it is the consensus of opinion that hemorrhages are of grave prognostic significance and when persistent lead to a fatal issue."

The homely adage that "an ounce of prevention is worth a pound of cure" is certainly applicable in the majority of cases of typhoid. Therefore I will quote Da Costa who says that the effects of venesection (general bloodletting) "diminishes blood pressure; increases speed of blood current, this amends stasis, absorbs exudate, and washes adherent corpuscles from vessel wall; it decreases amount of fibrin and albumin, lowers temperature and arrests cell proliferation, and stops effusion." Is it not easy to understand how beautifully the effects of venesection attack the phenomena of typhoid? However, I will go further and state that in a few hours after venesection or compensatory hemorrhage there is renewal of blood, accelerated tissue change and improvement of nervous system as *the result.*

Action in Syphilis, Rheumatism, Etc.

In reference to the effect of venesection on primary syphilis I am unable to say at present, further than it diminishes the viscosity and mass of blood, thus enabling the mercury to attack the specific poison more forcibly in the lymphatics.

Rheumatism, podagra, glycosuria, and allied diseases, are affected by venesection by causing a renewal of blood, increased activity of the eliminative organs and accelerated tissue change.

I have often found that the congestive condition of the liver and of the gall ducts submit very readily to depletion.

The Treatment of Apoplexy

The subject of apoplexy and its treatment is one of great magnitude; although the subject may be discussed pro and con, it is results that count. I will state briefly the treatment I have used for three years, and it is in my opinion the best extant.

On reaching the patient bleed and bleed freely. Bleed to the point of syncope. Get the pulse as near normal as possible, using aconitine, digitalin or veratrine, if necessary. Repeat venesection every few days, if indicated by blood pressure, apply cold to the head and evacuate the bowels. Immediately begin to administer potassii iodidum in 10-drop doses of saturated solution three times a day; carry your doses up to 30 drops, gradually reduce to 10 drops. After six or eight weeks of the iodide it can be alternated with Fowler's solution or nuclein, 4 drops three times daily. Massage may be applied in one week, and the faradic current may be used over affected muscles, four weeks after "the stroke."

My object in this treatment is to prevent the destruction of brain substance and bring about the absorption of the clot with a small cicatrix.

Who has not been present at the autopsy and witnessed the dire destruction to brain substance caused by these hemorrhages? It has been my good fortune to hold an autopsy on a patient who died from other causes than apoplexy but about two years previous had received the above-named treatment for apoplexy.

There was a cicatrix at knee of internal capsule that was hardly perceptible to the eye, about the size of mustard seed. This patient when she had recovered from the stroke had no motor aphasia, and very good use of the hand, but not good use of the leg.

I attribute the salutary effects of venesection in migraine, epilepsy, and acute insanity, and other mental or nervous diseases to the general effect produced upon the organism.

Septicemia from any source whatsoever is of very grave portend, and more especially so when derived from the uterus. The genital tract can be thoroughly cleansed, stimulation instituted, and free purgation secured by the usual treatment. Serum is sometimes supplemented. But let us hesitate for a monemt: After this poison is absorbed from the focus of infection, what do we have to deal with? Most certainly the blood, and the lymphatic system. Stimulation to be very effective must be administered hypodermically; free purgation is effective in so far as it clears the intestines.

What is the object aimed at in the treatment of septicemia? We say *the support* of the patient and *elimination of the poison.* How are we going about this when the excretory organs are not functionating? By the use of purgatives? No. When we go further than the evacuation of the bowels of fecal contents, we commit error. The argument may be used, that purgatives rid the body of the waste products of metabolism that the kidneys, skin, and lungs fail to eliminate; that has not been conclusively proven.

Purgation or Venesection---Which?

When we use purgatives we deprive the tissues and blood of the most useful agent and allow the poison to remain in a much condensed form. Therefore such procedure only adds to work of over-congested organs and the over-charged tissues.

What does venesection do? It reduces temperature by its action on the heat centers. It stimulates the nervous system. It stimulates the lymphatic system; it stimulates the blood-making organs to supply the loss, and also causes compensatory leucocytosis. Venesection removes the poison *en masse.* When the normal saline infusion is given, what happens? The blood is diluted with a natural antiseptic fluid. There is increased activity of tissue change. The congestion of the emunctories is relieved and natural func-

tionating begins. *Thus* we have a *natural treatment for elimination of poisons from the blood.*

I will add further that it will be but a very short time until various sera will be used by intravenous injection following venesection to attack disease. Marmorek, Moebius, Beebe, Rogers, Behring, and others have been active along that line. This line of treatment will be of inestimable value when the potency of the dosage can be accurately tested and applied. Venesection improves capillary circulation to a marked degree and thus amends stasis in the region of an indolent ulcer, more especially a varicose ulcer.

Venesection Aids Constructive Metabolism

I have observed in the cases of varicose ulcers, when venesection was performed, that the ulcer and surrounding tissue began to take on a healthy appearance in a very short time. A constructive metabolism was evident from the rapidity with which it healed. The varicose veins were much improved, and in many cases, if the blood pressure is kept diminished by frequent bleedings and proper bandaging with flannel, become quite normal. It is mere iteration to discuss the grand results obtained by venesection in pulmonary engorgement, intense pulmonary edema, acute heart disease, asthma, pleuritis, cerebral hyperemia, asphyxia and lobar pneumonia, for they have been proven beyond all possible doubt.

Aneurism is ofttimes benefited by abstracting eight ounces of blood twice every month. In so doing the intravascular and intracardiac pressure is diminished, and allows the coats of the arteries to compensate. The conditions ensuing from arteriosclerosis are greatly ameliorated by frequent venesections and use of the iodides.

Osler advocates venesection in arteriosclerosis, in cerebral hemorrhage, in emphysema, in heart disease, in pneumonia, in yellow fever, in sunstroke. He states in the latest edition of his "Practice," in referring to sunstroke, that when there is intense dyspnea and death impending, we should bleed. He states further that venesection saved the life of Weir Mitchell when a young man.

The subjects of uremic intoxication, opium poisoning, delirium tremens, though there is no immediate relationship in the etiology, have the same goal in view when it comes to treatment, i. e. *to eliminate the poison.* Hughes says venesection is too much neglected in conditions of coma and uremic convulsions. How very true.

An Eliminant in Eclampsia

Eclampsia is a pathological condition that certainly taxes the skill of the physician of today. Have we not noticed the fixed stare; the condition of the pupils; the rolling of the eyeballs; the twitching of the eyelids; the rolling of the head from side to side; the corners of the mouth drawn up; and finally the extension of the convulsion to trunk and upper extremities; then these sypmtoms followed by tonic contraction of muscles, cyanosis, froth at lips. After the above symptoms, clonic contractions, unconsciousness and death. It is an awful spectacle. What has the physician to do. Eliminate the toxins from the system that normally should be handled by skin and kidneys. By free purgation with croton oil, stimulation with chloroform, amyl nitrite, veratrine; free sweating by the hot pack? No. It is simply adding fuel to the fire and would surely make good old Æsculapius hide his face in shame. How *many, many* times have I abstracted from eighteen to thirty-two ounces of blood and given an intravenous infusion, sixteen to twenty ounces of saline fluid, to see all the above symptoms give gently away and unconsciousness succeeded by consciousness. Instead of a fetal mortality of 50 per cent and maternal of 30 per cent, we have one that is practically nil.

The present skepticism of the profession toward venesection is due in a measure to the early use and abuse of this valuable agent by laymen and uneducated physicians. Venesection is a logical, scientific measure for the cure of disease, and must be used systematically. In the

reduction of blood pressure, removal of toxic material from the system, and in securing constructive metabolism we must have a system.

The amount of blood abstracted to reduce blood pressure may not be sufficient to affect to a great degree the toxic condition of the blood. It is also necessary to maintain blood pressure at a certain point by frequent abstraction, etc. Thus you can readily understand the *absolute necessity of therapeutic accuracy.*

It has not been my object to herald venesection as a universal panacea, but *I do want to impress the medical profession* with the importance of its systematic use as an adjunct in the treatment of disease.

The Author's Conclusions

It is after the above experiments and observations I have arrived at the following conclusions:

1. In typhoid the intestinal hemorrhages may be avoided by timely venesection.

2. Venesection in typhoid lessens the tendency to formation of thrombi.

3. In typhoid the nervous symptoms are favorably influenced by venesection.

4. Venesection is often a valuable adjunct in the early treatment of syphilis.

5. Many nervous and mental ailments, as migraine, melancholia, mania, epilepsy and allied diseases, are very often favorably acted upon by venesection.

6. Venesection has been satisfactorily used as an adjunct when there were foreign substances in the blood or urine, as lactic acid, sugar, etc.

7. Venesection and administration of the iodides are the most powerful agencies we have today to combat the ravages of apoplexy.

8. Venesection is an invaluable aid in prevention of conditions arising from increased intravascular and intracardiac pressure. It restores proper tonicity to heart and vessel walls.

9. Venesection is of value in homoptysis and epistaxis in the plethoric.

10. When there are foreign toxic principles and failure of eliminant organs to remove these toxic products of metabolism as in typhoid, septicemia, diphtheria (Waugh), puerperal fever, etc., venesection is indicated.

11. There is no more valuable adjunct to constructive cell activity in overworked heart, kidneys, liver and lungs, than venesection.

12. Venesection causes a compensatory leucocytosis beneficial to many or all pathological conditions.

—:o:—

We have always believed that the medical profession made a great mistake when it permitted itself to be bluffed out of the practice of venesection. This commenced the movement that gradually drew us into the attitude of observation instead of that of active and decided intervention which characterized our ancestors. While there was much to justify the claim that we did not know enough of pathology and physiology then to permit intelligent intervention, this has been pushed to utterly unreasonable lengths, even to throwing overboard the entire body of practice based on clinical observations. It has been forgotten that a practice may be truly beneficial even if the explanation of its precise modus operandi was mistaken; and that the common experience of numberless acute medical observers, repeated for centuries, is far more likely to be correct than to be erroneous.

Venesection Better Understood Now

We welcome this paper therefore, and gladly give it space. Nevertheless, we can now give a better explanation of the benefits accruing from venesection than we could have given half a century ago, and we have the means of securing those benefits from more modern and less objectionable means in many instances. Take the ideal emergency for bleeding—the commencing stage of an inflammation; by draining the blood from any part of the circulation we create an area of low pressure that will attract into it a portion of

the remaining blood, and this will eventually drain away the surplus from the hyperemic area and by removing the first step leading to inflammation render the next one impossible. But while we can rarely accomplish this as speedily by our veratrine, aconitine and gelseminine as by bleeding, we can usually do it quickly enough and without the spoliation of the older method; for be it remembered that even in inflammation there is no surplus of blood in the body but simply a displacement, a disturbance of its distribution. Moreover while we are relaxing areas of vascular contraction to allow the blood to flow into anemic tracts we can at the same time be contracting the swollen vessels of the hyperemic area and forcing the extra blood out of them. This gives to the newer therapy an advantage that will forever prevent the restoration of venesection as our main stay in the treatment of inflammations. Nevertheless, as a remedy for emergencies where speed is essential and peril imminent it should be rehabilitated, and our correspondent has done good service in presenting it as he has.—Ed.

NEURASTHENIA IN LATER CHILDHOOD

A continuation of the article on "Neurasthenia in Infancy and Early Childhood" published in December. A careful clinical study, based upon biological knowledge

By WOODBRIDGE HALL BIRCHMORE, M. D., Brooklyn, New York

II.

As we have already said that the neurasthenia of infancy differs from the same disease in later life, by having a real anatomic substratum which the microscope can make clear to us, it is hardly needful to say that the later development of the condition differs in this respect. In the neurasthenia of childhood, as in that of later life, the nerve cells are starved, or are overworked, into functional incapacity or even into a condition of permanent disability, but the condition of cannibalism is never again reached, because no longer, so far as the limits of our knowledge justify us in saying anything positively, can it be regarded as possible.

In a child five years old the brain has taken on all the characteristics of humanity and while vast numbers of cells are yet young, even so young that the nucleus and the cell are almost equivalent in size, yet the free nuclei have disappeared as such. We find some few free nuclei in the brain of the normal child, but they are only the atrophied remnants, functionally dead, potentially non-existent. As the brain develops these young cells grow to maturity, but no more new cells form; the functional capacity of the brain increases to full maturity, but anatomically the brain has already attained its limit of capacity in early childhood.

So far is the actual functional development behind the potential development, however, even in the most cultured adult, that were the functional capacity of the brain increased by bringing into use twice as many cells as now find full functional life the student of the anatomic preparations would recognize the increase in the number of functionating cells in reserve he could not see.

Individually the brains differ; in A we may say, to illustrate relations, that cells 1, 2, 3, 4, 5, 7, 9, 11, etc., all the odd cells are developed; while in B we find cells 1, 2, 3, 4, 5, 6, 8, 10, etc., all the even numbered cells are developed. Plainly so far as the cells 1, 2, 3, 4, 5 are concerned the brains are identical copies anatomically and if nutrition is also on exactly co-equal range they are also identical copies functionally.

But they will also differ anatomically and therefore functionally as the functions of cells 7, 9, 11 differ from those of cells 6, 8, 10, the functions of the group A must differ just so much from group B, must differ by some *quantum*, but just to what extent we may or may not know, accordingly as we do or do not know the functions of the groups exhaustively.

In the present state of our ignorance, or our knowledge, which word to use depends upon the point of view; we are able to recognize two forms of unlikeness between the activity of pairs of brains, between A and A, the brains alike in qualitative, but unlike in quantitative, nutritional perfection; and also between A and B, and A and B, depending upon the anatomical distinction, a *qualitative* unlikeness.

Fundamentals Must Be Understood

To understand the theoretical developments and the logical deductions it is needful that these fundamental conceptions should be clearly understood. This is the more important because no one any longer denies the fact that the very existence of the mental faculties, as we know them, depends upon the physical and functional integrity of the brain and this remains true whatever may be our postulate in respect to the self-conception of the Ego.

In addition to these differences in the identity of the cells, as determining certain facts in the individuality, are other differences which condition sex-mentality, and the full possibility of this fact has been indicated no better than by Howard, and he has also indicated the peculiar incapacity of the human being when organs commonly coördinated, specifically to the mental life of the individual, as man or woman, diverge into asymmetric activity.

Since the neurasthenia of childhood is thus conditioned we may simplify discussion by saying that it is in origin nutritional, and then go into the detail in such measure as we see fit later on. But since sex is the supreme factor in every problem of nutrition, we must keep in our minds at all times the influence of this condition.

The *neurosthenic* (giant) man differs hardly more from the *neurasthenic* (dwarfed) man than do the neurosthenic (giant) man and the neurosthenic (giant) woman, and these differences begin to manifest themselves in early childhood.

The inference clearly follows that for us, as interested in this subject for purpose of discussion, the human race fraction representing boys and girls must be classified, in order to be sure that we grasp the matter in such fashion that we can find our way not only into the labyrinth but out of it again.

[NOTE.—The discussion of this subject is rendered doubly difficult by the absence of any adequate nomenclature. It does not appear to have occurred to anyone that we need a word having the meaning of a nervous system dynamically superior to the body's needs. Philologic analogy requires, that this word should be "neurosthenic," corresponding to Dr. Beard's classic coinage "neurasthenic," but the words are so perilously alike in form that the printer's devil can easily cause endless confusion of meaning; will not some one gifted in word-coinage aid us? To express the conditions in English words we are compelled to make most awkward periphases and to use many ungainly hyphenated periphases such as those in the previous paragraph. "Neural-giants" as the equivalent of those with the highly over-developed nervous system does well, but surely some better word can be devised. While I fully appreciate the ungainly diction I am at times compelled to use I can see no escape from the situation, which I beg the reader to consider less my fault, than my misfortune. There is no word expressing the functional antithesis of neurasthenia in the word-books of any modern language.—W. H. B.]

This, then, is our conception of the relations of the nervous system, the antithesis being maintained between the nervous system of mental and normal life on the one side and that of somatic life on the other. At the same time we must regard the distinction between the mentality which simply

plans and the mentality which wills, the moral mind. The definitions intended are as follows: "The moral mind" is regarded as the expression to consciousness, of the action of the cells whose functioning appears to us as purpose or choice, in general as "the will."

What Is Mental Balance?

"The intellectual mind" we appreciate as the perception of condition. Of the relation between circumstances, in general as the perception of environment, is the meaning intended.

The distinction is well illustrated by "the mind of a mathematician who may have the most perfect conception of every condition and detail in the design of a bridge and yet be quite unable to control the men and manipulate the conditions needed to construct it. To construct the bridge requires a development of the mind of relation, the moral mind, and the great personal skill attained represents the activity of the somatic mind, the animating apparatus which gives us animal existence.

Now we must accept it as a matter within the personal experience of all of us that these three mentalities seldom balance perfectly, or over wide areas of action. At times they balance almost perfectly, maybe balance with a perfection seemingly ideal over a very small area and we have an exhibition called genius. Assume for example a great painter, the somatic mind controls the muscles giving the manipulative skill, the intellectual mind appreciates and develops the *rationale* of the technic, and the moral mind conceives the detail of design, the purpose of the picture. This lame and halting illustration may perhaps make less obscure a conception all too nebulous in the writer's mind.

Genius, then, is understood to be this, a condition in which the lines of greatest capability of development in the three spheres of the mind's action coincide. But it is always requisite for the full development of genius that the coincidence shall be very narrow and confined, because for its development genius demands the whole nutritive power of the body, and relative atrophy, and atrophy quantitatively and qualitatively obvious to all, causes the denutrition of every other mental, moral and physical attribute.

Talent, on the contrary, while attaining lesser heights, belongs to a nature less specialized and consequently less abnormal. The field of usefulness is more extended, the nutrition of more cells is carried on in the brain in normal way. The nutritional demand causes a diffusion of the impulse to activity in absorbing nutritive supplies and a high nutritional state is reached in numerous cell groups, but the supply of the means of nutrition is insufficient to raise all the functionating cells to the activity of genius, while the atrophy of any group is equally impossible.

Genius a Splendid Insanity

One likes to speculate on what would probably result were a man of great talents to obtain for his fine and highly developed brain the nutritional equivalent of the genius. The result might well be startling as an incident in history. Two or three men have lived who were so constituted as to present that condition of nutrition which corresponds to genius over a rather wide range, and their names are in everyone's memory, but their deficiencies in some respects were as glaring as the superaverage capacity in others. Genius is only a splendid insanity.

The danger of neurasthenia from parental unwisdom and parental mal-balance in nutrition having been escaped, the next period of danger appears in the early days of school when childish vanity to excel declares itself. Insidious in its onset, the fact that the nervous system belonging to the intelligence, "the intellectual mind," is threatening both the muscular-mental system and the moral-child is seldom noted. But the facts are there and the forces active and if the condition is not noted and the environment changed, the parents presently are rudely wakened to the fact that intellectual mind success is the dominant desire of the child's life.

The intellectual precocity which all admire to the intense enjoyment and delight of both parents and child is associated with bodily incapacity, and a lack of moral strength.

Lack of Will-Power or Amiability?

In some of these unfortunates the lack of will-power is mistaken for amiability, and not infrequently the inability to resist, joined often to a sense of injustice, leads the child to find refuge in the ordinary devices of the weak and the intellectual capacity being fully equal to the need, the child tells elaborate untruths without the least reason, and without any sense of the moral degradation involved. Fear of punishment for childish faults is more often moral than physical, and the tears of a mother over a misdeed, utterly trivial and worthy of two minutes' consideration, *have caused a child to fear*, the most senseless act a mother can achieve if she has any regard for the moral welfare of the young human entrusted to her.

Fear, a quality belonging to the moral mind quite as much as the coolest courage, will bring into use every resource of the intellectual mind. But vanity also will do the same, and praise for not having committed some childish fault, even when there has been no possible temptation to do so, will go further to aid in resisting the temptation when it does occur, than will any fear of punishment.

Vanity is the very strongest impulse in at least nine in every ten children, and it may just as well be invoked to aid in moral development as in intellectual, yet useful as it is, the chances are hundreds to one that the parents and others will invoke it to weaken the moral faculties and not to strengthen them. As has been pointed out before, the moral faculties appear to suffer most in the dangerous stages of neurasthenia. But suppose the vanity is used as the stimulant in respect to intellectual excellence only—what is the usual result?

Simply this, that the intellectual life absorbs all the nutrition energy of the youngster's body, and, be that youngster boy or girl, the temptation to excell in something, in which relative excellence brings praise, becomes the impelling motive. In children of the age we are considering the usual form of contest becomes a feat of memory irrespective of the subject. Memory then is the intellectual faculty most usually cultivated and the child who starts with the memory organ functionating a trifle better than his neighbor's has an enormous advantage; he is praised, often unwisely. Vanity is enlisted, more praise is wanted, the will aids, the memory organ demands more than its fair share of the vital store of the body, and it gets it. The amount of nutritive energy can not supply the exaggerated demand of the intellectual brain and the muscle-brain comply also; the will in some un-understood way enforces the demand of the memory organ as against the brain having the muscles in charge. But the body-brain can and does presently take revenge, if the supply of food for the nerves and muscles concerned in bodily activities fails to supply the body's needs, then digestion, the labor of preparing food for the body, is not well done, or the supply is insufficient, and the unexpected, which in fact should have been the obvious, happens. The machinery of the will fails to receive the needed power and it comes to a sudden stand.

Story of a Precocious Child

Usually the catastrophe comes when a sudden call is made. Perhaps the child, as happened in a case the writer saw, is called upon as often before to entertain her mother's guests by a recitation. Practising before her mirror during the afternoon she had done her part wholly to her satisfaction, but as she said, it wearied her more than usual, but she would no doubt be all right in the evening.

Nine o'clock came and as she took her station she said to her mother, "I am awfully weary." She began her recitation, and soon she warmed to her work. She never did better and the eleven-year-old child seemed a miniature woman as she

repeated, artful by mimicry, the evidences of an emotion she could not feel for yet a decade. Suddenly she hesitated, caught herself, went on a few lines, stopped again and over her face came a look of utter fear, something beyond her experience had happened. "It was not that I had forgotten, that has happened often; I know what forgetting is like, this was different. I do not know if you will understand me; when you forget it is as if you had fumbled in turning the leaves of a book, but this time when I tried to turn the leaf something snatched the book away." After a most terrible series of incidents she was made to sleep by the aid of a large dose of chloral-hydrate, and all question of the future was put aside for the future.

Invited to accompany the family physician who had been sent for to the city I learned from him that the utter breakdown was not the unexpected so far as he was concerned, and that he had been so much impressed by the child's condition six months before that he had persuaded the mother to let him invite a well-known specialist to examine this product of modern life, and to obtain his opinion. The specialist said, as did the physician in ordinary, that the child's condition was perilous, and if she were not immediately placed in surroundings where her intellectual life was reduced to a minimum and the somatic life stimulated in every possible way, he could not be responsible for consequences. The words the specialist made use of had impressed themselves on the family physician's memory. "Madame, the intellectual development of your child is at least five years in advance of her age, and the bodily development is at least two years behind. If you wish to prevent a catastrophe place her in an environment in which her only intellectual acts shall be of the simplest character, and her principal anxieties the important questions, 'Is it time to eat?' and 'Is it time to sleep?' Even if she is prevented from all reading and study for five years she will by the influence of memory and introspection be far in advance of young ladies of her age at the end of this time." A slight improvement of the conditions followed for a few weeks and the vicious life was resumed.

Such in effect was the clinical history, but even this did not prepare me for the shock which the utter emaciation of her body gave me. Tall and slender I knew she was, but I had never pictured to my mind the skeleton which her rich clothing concealed. Slight indeed was the skeleton, but the musculature was simply a burlesque; to say that she was emaciated does not express the facts. It was incredible that she could endure any fatigue and I was not surprised to learn that her mother saw to it that a carriage was provided to save her the walk to and from the private school which she attended, and that a lift saved all walking up and down stairs both at home and at school, while a maid was her constant attendant to save her all possible exertion.

Of course this case is extreme and yet it is typical, although fortunately in most instances the intellectual life approaches less nearly to the dangerous condition of genius. The way this child would indicate the effects of passion was seemingly beyond her years; hate as children hate she had made her own, and it seemed almost as if her hate was womanly, but as a critic on one of the daily newspapers well said, "Her love is a child's and to hear her repeat such lines is the boldest farce," and he was right, she needed a body even to understand the words she uttered; the starved somatic life could exert itself even in the experience of the intellectual brain.

Child Neurasthenia Appears Early

The neurasthenia of the child is usually brought to notice at an earlier stage than in this case because when the predatory demands of the intellectual brain begin to weaken the body there are seldom lifts and carriages on call to substitute for muscles, and the somatic weakness causes questioning. The science of the physician is no doubt sometimes at fault as to the cause of the symptoms, but vastly less

frequently so than was the case a few years ago.

It is an open question if we are to accept the dictum of the Parisian specialist, "In the case of underweight in a child, emaciation by reason of recent illness of known character and tuberculosis being eliminated, neurasthenia is the diagnosis, and if the character of the recent illness can not be satisfactorily determined it is probably the diagnosis."

But the diagnosis established, then comes the question, "What are we going to do about it?" Yes, and in sooth it is a serious question and none too easy to answer, What are we going to do about it?

Check Destructive Forces; Insure Nutrition

The first and most obvious duty is plainly enough to check the destruction and to insure ample nutrition to the organs which have been deprived of their proper share of meat and drink. But the first thing as demanded by the philosophy of medicine is not always the simplest to achieve. Rest also must be obtained or nutrition can not take place, since this nutrition-demand cannot be met by a tissue in active function. Rest then is essential, and in the form of long-continued sleep it shows its utility to the best advantage. Under these circumstances the temporary use of an active hypnotic can not be dispensed with, and beyond question the hypnotic of choice in these cases is hyoscine. It is seldom needful to prolong the period during which the hyoscine is used, but the complete upset in the order of the life, which the physician must enforce, will most usually cause a serious, though perhaps an unconscious resistance, thus bringing on a serious nervous storm. The younger the child, the less its general experience, the more limited the area of its mental activities, the less the number of its interests, the more difficult it is to manage the patient in such way as to avoid conflict and the resulting nervous outbreak.

At once, do not hesitate, put the facts plainly to those responsible for the child's future, reduce to a minimum the intellectual life. The intellectual work done by the intellectual brain at the direct demand of the will and the other faculties of the moral brain cannot be restrained, nor would it be well if they could, but the intellectual brain can be made to find simple occupation as the coördinate of the somatic brain if care be used. The first golden maxim in these cases is to enforce sleep and to in some way obtain forced feeding, and the second golden maxim is to use this credit balance of food in the building of the body, muscular apparatus and brain

These cases are rarely anemic and will usually respond very satisfactorily if the treatment is well designed, but direct medical treatment is of less importance than the nutritional problem; and the needful change in the direction to be given to special nutrition. The time of trial for all concerned is the transition period before the body becomes adapted to the new life method. But do not commit the common mistake of attempting to make the little patient idle, this is simply a total failure.

The Bowels the First Problem

The first problem to be met and countered is the condition of the bowels. Investigations made in special cases clearly show that the kidneys are unreasonably overworked, while the bowels may in comparison be said to be idle. It will also be clearly shown that the poisons which seem to act as nervous stimulants are present in the urine, a proof that not only must attention be given to the emptying of the bowel but to the duty of keeping it clear from such dangerous chemists as are sometimes its inhabitants. To clear the bowel and to keep it clear there is no cathartic so useful as the effervescent saline laxative. Filling as it does all the obligations of a saline laxative it can be made a very delightful drink, if the water used has been previously made "just a little sweet." Experience suggests that a half-domino of sugar be dissolved in a tumbler of water, a rather larger tumbler than usual for choice, the "salt" being ready in just such another glass; the sugar

"holds" the carbonic acid which thus enters the intestine and acts by causing locally its peculiar effect. The daily use of a not large dose of this laxative salt during a long period will secure the habitual emptying of the intestine, and the best time for administration is early in the morning, preferably two or three hours before the child leaves bed.

Use of Intestinal Antiseptics

The intestine emptied is not an intestine cleaned, by any sort of means, and unfortunately our present supply of intestinal antiseptics is by no means large. The best intestinal antiseptics are the phenol-sulphonates and naphthalin, but although this latter has had and has now many advocates it is very "clumsy" as a dose, while the phenol-sulphonates (sulphocarbolates) are among "pharmaceutical successes."

By all means use them if the children are "fidgety." They can be given in a "compound dosage" of the "invariable three," or they can be given singly, selection being made for the case in hand.

Do not rush the forced feeding until the intestine is cleaned and the digestive apparatus is put into proper working order. Then press the fuel, do not make any one ration too large, give the child just about all the food it can digest, but do not overload the digestive system and do not provoke indigestion.

There is no doubt but that led away by the advice of certain great men the clinicians of a few decades since imagined that the nervous system needed special feeding in these cases, the relations of the brain to somatic nutrition at large having been quite misunderstood. The feeding of the brain as an entity cannot be done apart from the general nutrition except by the predacious method so often referred to here.

Experience demonstrates beyond all cavil, however, that certain substances do in most, mysterious fashion aid in the brain's nutrition, this athough we cannot form any rational explanation, but the writer has very serious doubts as to the truth of the nutrition theories just the same. The improvement in nutrition must be general to be real and enduring and the real and enduring character of this improvement is to be gained in one way only, by building up a body whose nutritional index, so to say, is high enough to sustain the brain's activity. The vast improvement produced by lecithin is not because it furnishes the said food to the whole nervous system; and it is quite possible that the substance in question acts fully as much by its influence upon the whole nutrition apparatus as upon the supersusceptible "gray matter."

Build Up Nutrition and Musculature

The simple purpose to keep in mind in these cases is to build the nutrition system and the musculature and thus co-equally the somatic nervous system to the level of the life demands, or, if it is the opinion of the reader that nutritionally the order is inverted, to build the musculature by developing the somatic-brain. To do this there is no means equal to *tennis*. The tennis-court, food, a bed in proportion, varied according to the needs of the patient, will do the work well and rapidly. Do not make the mistake of giving too skilful an antagonist to your patient, but give a skilful teacher, the more skilled the better, but let your patient play with his equals and his inferiors often enough to find his own rating. Here the skilled physician will invoke the various conditions which have done the mischief to aid in the cure.

To gauge the improvement in your patient watch the weight.

Gain your little patient's love if you can, his confidence you will win the more easily because his precocity, or hers, in intelltectual development makes possible appeal to feelings, usually quite wanting in young children, but present here. You naturally judge your patient by her size and age, which in this instance misleads wholly. In age still a child, in body an exaggerated young child, with a moral mind backward for her years, your patient may have the intellectual capacity of a girl in her middle teens, and this is to be remembered.

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SYPHILIS IN ABDOMINAL AND RECTAL SURGERY

The protean forms of syphilitic disease are illustrated by the experience of an abdominal and pelvic surgeon. This article tells of some of its common manifestations

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PROBABLY no other disease bears so important a relation to the work of the surgeon as syphilis. There is scarcely an operation that he is called upon to do that this dread malady may not influence, either locally or through its constitutional effect, rendering the best result impossible or in some instances causing the death of the patient. This is especially true in abdominal and pelvic work as here in many cases the abdomen must be opened and the peritoneal cavity entered, causing much greater shock than operations upon the extremities.

The very mystery and obscurity of the disease makes us hesitate lest it may be present even though we may not be able to discover it.

Like the great white plague it is everywhere. It has no limitations as to age, sex or social conditions. But unlike tuberculosis it exists in places where least expected and casts its blighting shadow where it is not supposed to exist. Often we are deceived and wilfully led astray and at other times those whom we wish to treat are honest in their ignorance as to the presence of the disease.

Johnathan Hutchinson says: "Our patients often have reasons for not wanting to tell us the exact truth, and still more often, they are not themselves cognizant of its presence. The disease is a slow one, and the case-histories which we have to investigate frequently extend over many years. Very often we are precluded by circumstances from asking questions which we would like to put. None of the symptoms are pathognomonic and with the best desire in the world to be candid, both patients and their advisers may give us misleading evidence. Such being the sources of error it becomes wise to distrust all isolated facts, however definite they may appear to be and give our confidence almost solely to propositions which are in accordance with general experience. The subject is one concerning which there is as yet much uncertainty in our knowledge."

Under certain conditions the disease may exist and not be recognized even by the most expert operators as when gummatous deposits break down and suppurate and operation is required because of the abscess that results. This may occur in the liver or spleen or in fact almost any organ of the abdomen or pelvis. It was formerly thought and is yet by some, that these deposits in the interior of the body would not suppurate, but the weight of authority at the present time is that they

may and often do so and that this is the cause of many abscesses, especially of the liver and rectum, in the latter case forming fistula.

Quincke of Berlin in speaking of visceral syphilis and how one may be deceived, and err in his diagnosis, relates the following interesting cases. One was a gummatous deposit in the cystic duct and head of the pancreas and could easily be palpated. There were typical attacks of gallstone colic which were supposed to mean a biliary lithiasis. An operation, however, disclosed that there was no tendency to gallstone formation, but a tumor was found which was not disturbed. It subsided under iodide treatment. In a second similar case the portal vein and biliary passages were compressed by a gummatous proliferation. In a third, a gumma in the mesentery had caused stagnation of the stomach contents and dilatation of the organ. The gumma was nearly as large as a man's fist and had developed to this size in the course of six weeks in an old syphilitic. Measures directed against the stomach troubles proves ineffectual, but under mercurial inunctions and iodide there was soon very marked improvement.

In an article on kidney surgery, an abstract of which appears in the *Journal of the American Medical Association* of Dec. 5, 1903, Marguiles adds a third to Israel's two cases in which syphilis simulated a surgical kidney affection. Israel removed the kidney in each of his cases, but Marguiles recognized the syphilitic character of the lesions after exposing the kidney, and refrained from operating. The complete recovery of the patient after specific treatment confirmed the diagnosis.

Testicular Disease Cured

Several years ago I was called upon to treat a swollen testicle. The patient was a German, age about 40, and otherwise apparently in good health. The organ was very much enlarged, hard and painful. After using various methods of treatment without benefit, I concluded that it was carcinomatous and advised its removal, which was refused. At last being almost at my wit's end as to what further method to employ I concluded to put him on iodides and apply mercurial ointment locally. Under this treatment the swelling soon disappeared and did not return. Had the patient consented I should have removed the organ and both he and myself would have thought it cancerous.

Apparently a Case of Phthisis

The following somewhat similar case is very interesting: "A gentleman at the age of twenty-five had complete syphilis. He took mercury and got well. Having been free from symptoms for five years, he married when thirty-one. Four children were born. He kept his health until forty-one when he had an enlarged liver. Soon after this he had cough and expectoration, and became very thin. He was sent to Italy for the winter. During the next year he continued feeble, and was supposed to be the subject of chronic phthisis. When he was forty-four he was sent to Algiers, and on his return home was so ill that he was expected to die. Suddenly, now, one testis began to enlarge. He came to me with a testicle as large as two fists. Its disorganization appeared to be so complete, and it was so serious an encumbrance to him, that I advised its removal. I was influenced in this decision by the fact that he had taken much iodide, and was in very feeble health. The iodide had much benefited him, but had not materially reduced the enormous testis. While waiting for his decision as to the proposed operation I ordered mercury. Under this remedy improvement at once set in. The result was that his testis after a few months, returned, to its natural size, and that his chest symptoms had disappeared. . . . I do not know that I have ever in any other instance witnessed the subsidence of so large a gumma; the testis was so big that I certainly at first thought its cure was almost impossible. The case may serve as a good example of what we not infrequently witness, a severe outbreak of tertiary symptoms after a long period of good health. Nearly twenty

years had elapsed, during which a healthy family had been born. Then the disease attacked in succession several viscera, the liver, the lungs, and the testis, not affecting any superficial part. The cure carries with it a clear lesson; that in all obscure diseases of the viscera in those who have at some former time had syphilis, we ought to try the effect of mercury."

Dr. Micharlow (*Deutsche Medizinische Zeitung*) says that within the last three years he has operated on two hundred syphilitic individuals, mostly women, and has observed that in these patients there is a certain diathesis which exerts an unfavorable influence upon the ultimate result of the operation; the diathesis consists especially in changes in the vascular system, morphological changes in the quality of the blood, and specific changes in the skin itself. These changes naturally play an important part in the process of the cure.

Delayed Repair in Syphilitics

The syphilitic diathesis lacks uniformity in the various organs and tissues and is more marked in the gummatous stage. In operating on syphilitic individuals, hemorrhage of the tissues, namely, in the gummatous stage, occurs very easily; even in extraction of teeth, hemorrhage may occur. In certain instances pigmented infiltration of the edges of the wound is observed so that the latter are elevated above the edges of the skin surface. Primary intention, even with the most scrupulous care, frequently fails, and even the healing of granulations is often slow and weak. The granulations are scarce, mostly in the stage of fatty degeneration, occasionally large, edematous, and colorless. The wound gives off a profuse, stinking secretion and its edges become atrophic. Elastic bandages or washing with carbolic acid easily lead to necrosis in the region of the wound, whereas the local application of warmth exerts a favorable influence upon it. Plastic operations are often without result in syphilitics. This syphilitic diathesis is very slight at times nor at all marked in persons who have a mild form of the disease or in those who have passed many years before, as well as in individuals who have been subjected to an energetic specific treatment. It must be accepted as a rule, however, to subject all syphilitics to a line of treatment before an operation is undertaken.

Treves in his work on surgery says: "Plastic operations not infrequently fail in syphilitic persons, especially when performed for the cure of deformities produced by the destructive manifestations of the disease.

"Such operations should not be undertaken lightly nor carried out until every means, by general and specific treatment, has been taken to place the patient in the best condition of health.

"I believe that in many cases the patient dies not from the operation but because of a syphilitic taint that has undermined his constitution and made him unable to withstand the sudden strain to which he is subjected."

White and Martin, in their recent text-book, in speaking of syphilis of internal organs, say:

"The stomach.—In addition to symptoms of acute and chronic catarrh, those of gastric ulcer are sometimes noted. This even though occurring in a syphilitic, may be non-specific in nature, or it may be due to the breaking down of a gumma. In the latter case it is likely to be located near the lesser curvature in the pyloric region. The symptoms of gastric ulcer of syphilitic origin do not differ from those of non-specific nature. The diagnosis must be founded on a therapeutic test, though at least two reported cases seem to show that when the lesion is due to syphilis the pain is greatest at night.

Syphilis of the Intestines

"The Intestines.—Ulceration of the intestines may be due to the breaking down of a gumma or of the lymph glands of the intestinal wall; according to Rieder's researches, ulceration of the bowel is most frequent in the upper portion of the small intestine. The ulcers are multiple and grouped, exhibit the characteristic infiltration of gummatous ulcers, and are late tertiary manifestations. They involve all the coats of the bowel.

They may result in cicatricial stenosis. These lesions offer no clinical features peculiar to themselves. Their nature can only be suspected from associated symptoms of syphilis."

"Gummata may develop in or beneath the mucous membrane of the rectum, or in the surrounding tissue of the ischio-rectal fossa. Not infrequently they assume the form of a diffuse infiltration, producing rigidity of the walls of the bowels, the mucous membrane remaining quite healthy. This may be followed if untreated by ulceration or absorption, in either case resulting in stricture.

"To all who are doing surgical work because of their love of science, every element that may enter to make for success or failure should have careful consideration and nothing, it seems to me, is of more importance than the consideration of the relation that syphilis bears to surgery."

A CASE OF ENCYSTED VESICAL CALCULI

The method successfully employed in a troublesome case which had previously resisted other forms of operative treatment

By GEORGE W. JONES, M. D., Keokuk, Iowa

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IN the case here reported the patient had suffered some four years, previous to having been seen by the writer, with a tight urethral stricture for which a very extensive external urethrotomy had been done, but the after-treatment had been badly neglected, the introduction of sounds after the operation and during the patient's convalescence scarcely having been used at all. As a result the urethra appeared, upon examination by the writer, to be the seat of extensive cicatricial stricture. The patient was suffering from frequent and painful urination both by day and night. There was no history of hematuria. The urine at the time patient was examined by the writer showed upon microscopical examination a large amount of pus, but no blood.

The patient being anesthetized, after patient effort it was possible to pass a Bank's filiform followed by an ordinary filiform bougie, upon which was threaded a tunneled sound which was finally made to enter the stricture. The membranous urethra was opened for a distance of half an inch upon the guide and the stricture freely cut using the tunneled sound, and back of its point the filiform as a guide for the cutting with first a Gouley's beaked bistoury followed by the use of a probe-pointed bistoury. The neck of the bladder was then dilated with the finger, when a phosphatic stone was found of an inch and a half in diameter. This was crushed and the fragments washed away through the perineal incision.

High up in the floor of the bladder-wall could be felt a hard mass which was covered by mucous membrane and could be distinctly outlined with the finger in the rectum. After several efforts with a probe introduced along the finger it was possible to pass this instrument from the bladder through a small opening down into a space between the bladder and the rectum, within which space were two large calculi. Using the probe as a guide the bladder mucosa over the calculi was incised with scissors and the calculi removed with the greatest difficulty. It was apparently impossible, so firmly were they crowded into this cavity, to grasp them with forceps or get an instrument behind them for their removal. Finally, however, by the use of a small scoop one of the calculi was sufficiently dislodged to allow the use of the lithotrite, introduced through the perineal incision, sufficiently to partially break up the calculi and the fragments were removed with some difficulty with a scoop. The bladder was drained by a large soft-rubber perineal tube.

A CASE OF KELOID OF THE BREAST

This disease, while relatively common in the negro, is rare in whites. A description, with illustration, of a typical case of the disease

By F. U. PAINTER, M. D., Pilot Point, Texas

KELOID of the breast is sufficiently rare and interesting to warrant report of the following case:

Mrs. E., a native Texan, was aged twenty-five, married, and mother of three children. While nursing her last baby the breast became infected through fissured nipple and an abscess formed in the deep structure of the gland. The pus was permitted to burrow through several sinuses and escape without surgical interference. The suppurating breast was dressed with "home ointments" and eventually healed. Three months after all pus had disappeared, the scars began to grow in a peculiar manner, and take on a dusky-red, or purplish color.

DR. PAINTER'S CASE OF KELOID

I was then consulted concerning the treatment. Diagnosis of keloid was made and I advised complete removal of the gland. This was refused.

The photograph was taken at time of her first, and only visit, to my office.

Six months after, I was told by another physician, the keloid had covered at least one third of the breast and was very painful. The case passed out of my knowledge and I do not know the ultimate result—whether it has spread or not.

A COMPLICATED GASTROINTESTINAL CASE

A dilated stomach, with hyperchlorhydria, complicated with acute nephritis and an attack of appendicitis. Recovery after operation

By N. STONE SCOTT, M. D., Cleveland, Ohio

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THE vast majority of our cases are routine, uninteresting from a diagnostic or operative standpoint and of little clinical value, except possibly from a statistical point of view. There is, however, an occasional exception which is fairly bewildering in its wealth of clinical symptoms, and which presents a series of medical and surgical problems at once puzzling and therefore fascinating. Such a case was the following:

Long-Continued Dyspeptic Symptoms

Mrs. W. of Oberlin, aged forty-eight years, is the mother of several children, the youngest of whom is a freshman in college. Possessed of a stomach which has been the cause of more or less difficulty all her life, she passed through a period of especial distress when about eighteen years of age, marked by severe dyspeptic symptoms, loss of flesh and anemia. During this illness she vomited no blood, nor, so far as she knows, was any diagnosis made of ulcer of the stomach. Her gradual recovery, though incomplete, left her in comparative peace until within the past few years, when the offending organ again caused such disturbance that of necessity she spent many months in different hospitals and sanitariums under treatment. In the spring of 1905 I saw her, found that she had a very greatly dilated stomach and advised operation, which advice was rejected. She spent the summer in a sanitarium, returning home in the fall somewhat improved.

At three o'clock in the morning, on December 22, 1905, she was awakened by a severe abdominal pain with vomiting; Dr. Jamison was called and found a decided muscular rigidity over the right lower abdomen. He made a provisional diagnosis of acute appendicitis and advised immediate removal to a hospital where she could be under observation. She came to Cleveland; I saw her the same evening; her temperature was 102°F, pulse 124, leucocyte count 12,800, right side of the abdomen tender, muscular rigidity present, but not more so in the lower than in the upper quadrant, and the point of greatest tenderness was apparently over the gall-bladder. At this time it seemed probable that an emergency operation might be necessary during the night, whether for acute cholecystitis or for acute appendicitis was not quite clear.

The Patient's Physical Condition

The following morning the leucocyte count was 11,500 but the uranalysis showed an abundance of albumin, blood and pus; hyaline and granular casts were also found, and the urine was scanty in amount. The temperature 100°F, pulse 118, were both better though she still complained of severe pain in the abdomen. The upper border of the stomach was normal in position, the lower border was within a quarter of an inch

of the symphysis. My diagnosis was acute nephritis, complicated by or superinduced by an acute appendicitis or cholecystitis.

A week later the albumin and casts had entirely disappeared and the amount of urine reached 1150 Cc. per twenty-four hours; the dilation of the stomach was not quite as great as formerly, reaching, when not distended, only two thirds of the way to the symphysis. The stomach analysis, furnished by Charity Hospital Clinical Laboratory, gave the following results: Reigel test meal—three hours, amount 100 Cc., free HCl with Congo, free HCl 56 per cent. Total acidity, 92 per cent.

Acute Nephritis---Complicated

She had evidently just passed through an acute nephritis which was judged to be an acute exacerbation of a chronic condition; this was complicated or superinduced either by an acute appendicitis or an acute cholecystitis. She had also a hyperchlorhydria, and a marked chronic dilation of the stomach, the result of a non-malignant pyloric obstruction.

Certainly this will easily be recognized as an extremely complicated condition, one in which the choice of an anesthetic is of equal importance with the method and order of operation. In just such cases a fatal termination is liable to occur, shortly after the operation from the shock, or a few days later with an acute suppression of urine, should ether be administered. It was decided to give nitrous oxide and oxygen. In view of the possibility of the patient being unable to endure two major operations, since she was in poor condition for one, it was decided to begin with the stomach, leaving the appendix if necessary.

The operation was performed January 9, at Charity hospital, the house staff assisting, Dr. Brown anesthetist, Dr. Newcomb, her cousin, and Dr. Jamison, the family physician, being present. A two-inch median incision above the umbilicus was made. Gallbladder and kidneys were apparently normal; this demonstrated that no gross pathological changes had occurred in the kidneys, and that she had no cholecystitis. The stomach was found to be greatly distended and the pylorus small and hard. On the posterior wall of the stomach was a spiderweb-like arrangement of fine cicatrices, the result of old, inflammatory attacks. A posterior gastroenterostomy by the Roux method was performed with needle and thread. A second incision was made over the appendix, one and one-quarter inches long; here the evidences of her recent trouble were found to be well marked. There were many fine, recent adhesions between the head of the colon and contiguous structures; after loosening these, the appendix—found to be greatly inflamed, thickened and bound down by old adhesions—was removed.

The patient was returned to bed in an excellent condition with a pulse rate of 86. During the evening she vomited two ounces of dark-brown fluid and the following morning her temperature was 98° F. The twenty-four-hour specimen of this day was 770 Cc., in which there was a little albumin. The next day, January 11, all albumin had disappeared and the urine increased to a normal quantity. The patient continued to regain her strength and ability to take and digest food. She left the hospital February 3rd in excellent condition, feeling better than she had for several years.

In an experience with the nitrous oxide and oxygen gas, extending over some eight years, this is the third case that has shown even slight symptoms of kidney-irritation following a gas-administration. Recent kidney complications had been present in all three of the cases, and it is reasonable to suppose the irritation would have been exaggerated if any other anesthetic had been used. While one case does not make a mathematical demonstration, it may afford clinical lessons of equal practical importance.

To my mind the noteworthy points in the foregoing are

First, the value of the proper anesthetic,

Second, the smoothness of recovery, following such extensive and complicated, operative procedures.

TWO CASES OF CESAREAN SECTION

The experience of a convert, who formerly opposed but now favors this operation. With the improved technic it is shown to be as free from danger as other obstetrical operations

By A. LAPTHORN SMITH, M. D., M. R. C. S. (Eng.), Montreal, Quebec

Surgeon in Chief to the Samaritan Hospital for Women; Gynecologist to the Western Hospital and to the Montreal Dispensary

AT the outset of this short report I wish to frankly confess that I was formerly much opposed to the growing frequency with which the operation was being resorted to, not in the cases of contracted pelvis but in those of puerperal eclampsia and placenta previa. The change in my opinion is largely due to the brilliant series of cases reported by Dr. H. L. Reddy, the Director of the Montreal Women's Hospital. My objection however was only relative; for, as long as the operation had a higher mortality than the condition it was intended to relieve, I felt that it should only be resorted to in extreme cases. But as soon as the technic had been so improved that there was almost no death-rate to the operation I became an ardent convert. And now we have found out that even the high death-rate which used to follow was not due so much to the operation as to the delay in performing it. Any operation will have a high death-rate when performed on infected and dying women; we have learned that if Cesarean section is performed early enough it is almost the safest of all abdominal sections. These two cases are reported in the hope that other desperate cases may have the advantage of benign treatment. The word "benign" is used, because the operation is free from the lacerations and bruises which are inevitable in the *accouchement force* especially when the Bossi dilators are employed. These have a high death-rate from hemorrhage and infection.

Case I. Mrs. B., age 23, came under my care Nov. 6, 1905, complaining of leucorrhea, and saying that she had had two miscarriages, and was anxious to have a living child. She had first menstruated at 13; but not again until she was 16. She was married at 21, and had two pregnancies, miscarrying the first time at three months and the second at two months. On examination the uterus was found subinvoluted and retroverted to the third degree. It was easily replaced and a pessary was inserted. This, however, was removed at her next visit as it hurt her; so medicated tampons were inserted in the knee-chest position, which kept the uterus up, and soon relieved the leucorrhea. She had some nausea and constipation, but they disappeared under laxatives.

It was supposed that the miscarriages were due to the retroversion and when she became pregnant, about the end of January, care was taken that the uterus was kept in good position. As she was very anemic she was put on iron tonics and soon her general condition improved; she was not seen again until April when she was judged to be about two months' pregnant. The uterus being in good position, and there being no albumin in the urine, she was told to come at the end of the sixth, seventh and eighth months to have the urine examined.

She was not seen again until early on the morning of August 5—the day she was to come to have her urine examined. I was called to her home to find her in a profound coma, she having had three convulsions in rapid succession. She was examined with a view to rapid delivery, but the cervix was long and absolutely undilated.

She was given a hypodermic of morphine and a salt enema, but her pulse being slow and weak, veratrum viride (the writer's favorite remedy) was contraindicated. Bromides in 40-grain doses were given by rectum but no chloral or chloroform. As the convulsions were less frequent it was thought that

labor might soon begin so we waited until four in the afternoon, when there still being no attempt at dilatation she was taken to the Samaritan Hospital, for Cesarean section. Her urine, drawn by catheter at 7 a. m., was found to be loaded with albumin and very scanty.

The Patient Operated Upon

She was somewhat hastily prepared and Dr. Reddy kindly gave me the benefit of his assistance. The incision was made in the abdominal wall and uterus and the child removed still covered with the unruptured membranes; one of the staff ruptured the membranes and took care of the child.

It was surprising how quickly the small incision in the uterus could be enlarged by tearing up and down with the forefingers, and the feet caught, and the whole ovum, placenta and all, could be extracted. There was almost no bleeding as Dr. Reddy controlled it by holding the broad ligaments. What took the time was the sewing up of the opening in the uterus with interrupted silk sutures to the number of about twenty, and then a second row of running catgut sutures over them. The abdominal wall was closed with through-and-through silkworm gut. The whole operation took forty minutes, but could have been done in twenty if the uterus had been closed with two rows of running chromicized catgut. The infant, which appeared to be of a little less than seven months' development, was sent at once to the incubator. It did well and is now a healthy, normal child. The mother lived for three days after the operation, but although her urine improved very much she never regained consciousness.

Case II. Mrs. K., 38 years of age, first came under my care eight years ago, saying that she had been pregnant twice, but that each time she had had to have the child destroyed by craniotomy. She was told by her physician that, owing to the contracted pelvis, she would never be able to have a living child. Reddy kindly measured the pelvis for me, and reported an antero-posterior diameter $9\frac{1}{2}$ centimeters or $3\frac{3}{4}$ inches. At that time symphysiotomy was much in vogue, so I told her that I would take her to the hospital as soon as labor begun, deliver her by dividing the symphysis pubis, with a good chance of the child's being born alive. In due time labor began, and she entered my private hospital, and as soon as dilation was complete preparation was made for the operation. Just before resorting to it it was thought well to have one trial with the long forceps. By drawing well down something was felt to crackle like stiff parchment, after which the head came down quite easily. That child is now a well-developed girl about eight years old.

The crackling was thought to be the parietal bone being indented enough to let it pass the promontory. The mother was warned if she ever became pregnant again to eat very little, so that she might have a small child. The result was that she had a boy and a girl after that by the aid of the forceps, the boy, however, requiring great force to extract the head. She got through these two so well that she forgot about the difficulties with the first three, and began to eat more heartily than ever, so that I was rather dismayed when she appealed to me again this summer looking as if she had been feasting during the whole of her pregnancy, for it was feared that the child's head would be correspondingly large.

Efforts to Deliver Fail

In due time labor began and was allowed to go on for fully twenty-four hours in the hope that the head would engage; with the help of Dr. McGovern efforts were made for nearly an hour to get the head through, but without being able to get it to enter the brim of the pelvis. As I was somewhat worn out with the exertions, during a very hot night, and as her pulse was beginning to show the effects of the prolonged anesthesia, I decided to send her to Dr. Reddy for Cesarean section, but finding that he was at the seaside she was brought to the Samaritan Hospital, the staff was hastily summoned, and about 11 p. m. Dr. Johnson

assisted me in opening the abdomen. The incision in the uterus went through the placenta, and was enlarged by tearing, as in the previous case, although in that one the placenta was not cut through but taken out whole with the membrane. Everyone present was struck with the ease with which the child was pulled out, the placenta peeled off, and with how slight loss of blood. The hemorrhage was prevented by Dr. Johnson's compressing the broad ligament, and no blood was allowed to get into the abdomen. What took most of the forty-five minutes was closing the tear in the uterus.

The Child Born Dead

The child which was alive a few minutes before, was born dead and could not be revived, its head having been considerably compressed by the forceps. Another time it would be better not to use them at all but to do the Cesarean section at first instead of at last. The woman herself was considerably bruised, but as she was kept aseptic no harm came of it, her temperature being normal all through. On account of domestic troubles she went home in two weeks, but the through-and-through stitches were only taken out a week later. The first thing she asked when she recovered consciousness was whether the operation had been done in such a way that she would not have to undergo it again. It was intended to remove a piece of the tubes so as to sterilize her, but this was forgotten during the exciting interest of the operation. Naturally the woman was disappointed, but I no longer consider the operation a serious one if done before much bruising has been caused by prolonged attempts to deliver with the forceps. Certainly in any case where the antero-posterior diameter is over 9 centimeters the forceps should be tried with moderate force, for this woman was delivered three times out of six by their aid.

I am convinced that an expert operator could do a hundred Cesarean sections without a death from the operation, although a certain number would be lost from the disease for which the operation was performed too late. As a result of my experience in the first case I shall in the future urge every pregnant woman to have the urine examined every month from the beginning of pregnancy and not only during the last three months; and if I have a case of eclampsia where the pulse is slow and weak and the os not dilated I will not again wait ten hours before operating.

WE regard those as surgeons, and those alone, who have, by conscientious devotion to the study of our science and the daily habitual discharge of its multifarous duties, acquired that knowledge which renders the mind of the practitioner serene, his judgment sound, and hands skilful, while it holds out to the patient rational hopes of amended health and prolonged life.—Dr. Valentine Mott.

HELPS IN HYOSCINE-MORPHINE ANESTHESIA

Many questions have been asked concerning the details of technic, possible accidents, and range of usefulness of the "new anesthesia." Answers here

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SINCE the publication of my first paper numerous reports have been made and several questions of importance asked. Among the most important may be noted the following:

Mental Disturbance.—Dr. Vandover, of St. Louis, has had two cases in which slight, transitory mania followed the use of the anesthetic. In a number of my cases the patients have been a little "drunk" for some days, but not enough to occasion alarm.

Lowered Respiration.—Many have called attention to a supposedly dangerous symptom—diminution of the respirations to eight or ten per minute. This is something to be expected; and should occasion no alarm unless the face become purple instead of red. When this occurs, or when the respirations sink to six per minute, the patient may be turned upon the side and shook about every three or four minutes, being told to take full breaths. In a little while the number will increase to ten or twelve per minute, which is the normal in this form of anesthesia.

Increased Heart's Action.—Several surgeons have become alarmed at the rapidity of the pulse: 100 to 130 per minute. Patients in whom this is noted are unduly sensitive to hyoscine. In such a condition to produce profound surgical anesthesia a few drops of chloroform may be used by inhalation, or the third dose may be one of pure morphine (gr. 1-4) without the hyoscine and cactin. But a pulse of 120 usually becomes 90 after operative measures are begun; so it need occasion no anxiety.

Time of Administration.—As our knowledge of the character of this form of anesthesia increases it is demonstrated that we all have been operating *too soon* after the administration of the drug. For a severe operation (like amputation of a leg or a hysterectomy) I now give the first dose three hours before operation, and the second an hour and a half later. Then if a third dose is needed it is given when patient is put on the table, an hour and a half after the second dose. Analgesia should be perfect in a few moments and will last for hours.

Time of Awakening.—A question frequently asked is: When should the patient be awakened? And most doctors seem to fear too long slumber. *The longer the patient sleeps the better*—eight to twelve hours being desirable; longer will do no harm if the breathing keeps above eight to the minute.

Amount to be given.—Numerous letters contain the statement: "My patient was profoundly unconscious an hour after the second injection," and the query: "Should I have given the third dose?" Certainly not! Enough is enough—of anything. If one dose produces complete insensitiveness to pain even a second dose is not needed; I have made a vaginal hysterectomy with only a single dose and not a drop of chloroform.

Use of Atropine.—It is strange how doctors cling to the idea that atropine must be given with morphine. *In this anesthesia atropine must not be given either with or after the morphine*—it makes the patient crazy.

Use of Strychnine.—Too much strychnine is being used after operations. With this anesthetic it may be given as after chloroform or ether if one so desires, but it is apt

to unduly excite the patient and make him restless instead of tranquil as he should be.

Age limit.—I have not given it to any patient under ten years of age, but if the general conditions were good there is no reason why it should not be given—say in half doses—to a child of six; but children bear chloroform so well there is little to be gained by use of the newer agent. In old people if there be no marked atheroma and no renal insufficiency there should be no limit on account of age—conditions, not years, must be the guide; some men are extremely old at 60; others are young at 70. I have operated on several patients close to 65 with no ill effects; but I have declined to give it to several at 60.

In labor.—So far as reports thus far received of its use in labor are concerned, there is uniformity of opinion that it has no bad effect on the mother. Some observers claim that there is a little more trouble in making the child breathe after two or more doses to the mother, but no fatalities have been recorded directly traceable to the anesthetic. It does not favor post-partum hemorrhage.

How to try it.—Many surgeons say: "I would like to try it but I am afraid something might happen—and I know chloroform (or ether) is safe in my hands." To such I say: "Give one dose two hours before operation and see how little chloroform will be required and how little nausea and pain follow. Next case try one dose three hours before operation and a second dose one hour and a half before and see how it acts. Later you will learn why and when to give a third dose."

To control pain.—The combination of morphine, hyoscine and cactin gives far better results in the control of pain than the old morphine and atropine tablets. For the relief of pain with shock—such as gallstone colic, renal colic, etc., I am sure this combination will give far better satisfaction than older remedies; and if a second or third dose be given it puts patient in ideal condition for operation should one be determined on later in the attack.

SURGERY OF THE NOSE AND THROAT

Some general considerations concerning diseases of the upper air passages. A paper read at a union meeting of the Third and Fourth District Societies, at Huron, S. D., September 12, 1906

By J. G. PARSONS, M. D., Brookings, South Dakota

THE functions of the nasal passages are mainly concerned with respiration. During inspiration the air which passes through the nose is heated, moistened and filtered, so as to fit it for entrance into the lungs. At this time also odoriferous particles are brought in contact with the olfactory nerves. During expiration, accompanied by phonation, the nose plays an important part in speech and song, serving as a resonator.

The turbinals are constructed on the principle of a hot-water radiator. The turbinates are surrounded by a mass of cavernous tissue through which an abundant supply of blood surges, radiating heat to the passing air. The mucosa is abundantly supplied with glands which pour out secretions having bactericidal properties. Under normal conditions by the time the air has been inspired into the nasopharynx it has been so filtered and acted upon by the nasal secretions that it is practically sterile.

The amount of fluid required to moisten the inspired air is about one pint in twenty-four hours. This amount of fluid does not all come from the glands in the mucosa, but is probably in a great measure supplied by transudation from the underlying blood and lymph supply. It is also probable that

the principal function of the accessory sinuses is to furnish an extra surface for transuding moisture and radiating heat. There seems to be no other well-defined function for the sinuses in man, in whom they exist as vestigial structures.

The nerve supply of the nasal cavities is peculiar. It has been described as a switchboard with numerous reflex connections. There are well established evidences of nervous connection with the eye, ear, sensory nerves about the face and head, the whole respiratory tract and the pelvic organs. Because of these reflex connections, the condition of the nasal cavities should not be overlooked in investigations as to the cause of neuralgia, headaches, and nervous disturbances of the respiratory tract.

Local Irritation, Chronic Congestion

Irritation of the nasal mucosa is followed by congestion locally and to some extent reflexly. Repeated congestion brings about chronic congestion, lessens the resistance of the tissues and the bactericidal properties of the secretions.

The irritation may come from numerous sources, but the most frequent cause is dust-laden air, so frequently met with in large cities and in a prairie country like ours. Here we have not only a mechanical (and possibly chemical) irritant, but a bacterial irritant as well. A chronic inflammation thus established naturally tends to hypertrophy of the tissues affected. There is an overgrowth of connective tissue fixing the swollen tissues. Cartilage and bone in adjacent structures take on the same hypertrophic changes. Under the influence of these hypertrophic changes the normal caliber of the nasal air passages becomes reduced. There is not room for the proper amount of air to pass through into the lower respiratory tract, so that partial mouth-breathing must follow by the way of compensation.

Proper drainage of the nasal secretions is rendered difficult. The secretions vitiated by the presence of muco-pus tend to crust formation. A crust thus formed between the sides of the cavity approximated by hypertrophy makes a stenosis at that point and further cuts down the caliber of the air-passage. The hypertrophy may itself be sufficient to occlude the passage, making mouth-breathing compulsory.

Hypertrophy in the region of the opening of a sinus renders drainage there difficult. The swelling may occlude the opening of the sinus. The oxygen of the air-content of the sinus is absorbed by circulation, creating a partial vacuum, which in turn produces local congestion of the sinus mucosa. Such a catarrhal sinusitis is frequently met with in acute coryza. Such a sinus cavity partakes of the nature of the nasal mucosa with which it is connected, and becomes liable to infection, which probably occurs with far greater frequency than we are aware of.

Pressure on the opening of the lachrymal duct interferes with tear-drainage. Accompanying these pathological changes will be likely to be found reflex disturbances elsewhere, through the nervous connections mentioned above. It is not necessary to go into detail concerning the anatomical relations between the nerve-supply of the nasal cavities: the olfactory, fifth and sympathetic, with their ganglionic connections. The clinical evidence is abundant to show plainly the existence of connection between these nerves and those of other regions. Conjunctival congestion, relieved by nasal treatment; facial and supraorbital neuralgia relieved by removing pressure within the nose; reflex cough in a like manner: these are common illustrations of reflex connection. In these conditions there seems to be a transmission of the irritation to other nerves. The source of the irritation in the nasal cavities may be pressure on a nerve by a hypertrophic turbinal, contraction of scar-tissue, distention or congestion of a sinus cavity or toxic irritation.

The Cause of Hay Fever

That complex combination of disagreeable symptoms known as "hay fever" is due to the presence of one or more of these pathological conditions, to which has been added the specific irritant to which

the sufferer is susceptible. Fitzgerald contends, and in my opinion with reason, that hay fever is curable by rendering the nasal passages normal, stating that there is some physical pathological basis to every case. I have never seen a hay-fever patient with a normal nose.

When the important functions of the nose are interfered with or destroyed by occlusion of the air passages of the nose, mouth-breathing must follow. The evil results of the mouth-breathing are shown in the fauces and pharynx. Constant exposure to dry, unfiltered air sets up an irritation in the throat. The tonsils are irritated and made susceptible to infection from inspired bacteria and those which are found in the oral cavity.

The Mouth Breather Susceptible

The larynx, trachea and lower respiratory organs suffer as well. It is plainly to be seen that a mouth-breather does not have a fair chance to resist infections which attack the lower respiratory tract. He is more susceptible to tuberculosis by reason of having to breathe the infection directly and also by having diseased tonsils as a result of mouth-breathing. Tonsils which have become degenerate by reason of continued irritation, or acute inflammation, are a menace to the general health of the patient. They are vestigial structures and play a very small part in the human economy. It is thought that they are germinating centers for leucocytes, and have a protecting influence against infections. However, if they are diseased their protective power is gone, and they become a constant invitation to infection. Their direct connection with the cervical lymphatics makes them the port of entry for systemic infections, chief among which are rheumatic fever and tuberculosis.

The other lymphoid structures of the pharynx may be affected. Adenoids are the most frequent offenders and are found associated with diseased tonsils, in children frequently. By obstruction of the posterior nares they cause mouth-breathing and are frequent causes of otitis media.

The foregoing is a brief survey of the most common pathological conditions of the nose and throat. The other factors in etiology, such as nutrition, autointoxication, ventilation, etc., do not come within the scope of this paper.

We are afflicted in Dakota with the conditions which give rise to the nose and throat troubles mentioned and as is well known, we have them, like the poor, always with us. In fact the extreme frequency with which we meet these conditions has led to a sort of contempt for them, so that they do not receive anywhere near the serious consideration which they deserve. I would make an urgent plea that every practician make more general use of the head-mirror, tongue-depressor and nasal speculum. If he will but make an effort to see the conditions of the nose and throat, and interpret them intelligently he will not be content to simply say: "U-m-m, Catarrh," and let it go at that. Failure to interpret the significance of things seen with the head-mirror and speculum has led many practicians to become discouraged in the attempt to treat nasal and throat troubles. There are many compressed-air tanks which when new were used frequently, and now seldom utter a gasp. Their owners have come to the conclusion that they are fake concerns. Now a compressed-air tank is a useful piece of apparatus with which to apply medication to the nose and throat; but it can't make intelligent diagnoses or do surgical work. And surgical work is the principal thing needed in a great majority of these cases.

In a Case of Post-Nasal Catarrh

To illustrate: A patient shows up with a post-nasal catarrh. His pharynx is dry except for the presence of muco-pus which drops down constantly. If there is a large quantity of that pus it must come from somewhere. Close investigation will probably disclose the presence of a chronic infection of the posterior ethmoidal cells, or perhaps of the sphenoid. All the sprays that may be blown against the mucosa

of such a pharynx can have little effect. Neither will medication affect the inaccessible cells of the ethmoid. Here is a diseased bone-cavity. Common sense tells us that we have a surgical condition to deal with. Drainage is indicated. If the patient happens to be a mouth-breather, the first indication is to secure normal breathing through the nose. After this has been established something may be done for the pharynx.

Tonsils varying in size from those hypertrophied so as to protrude half way across the fauces, down to those which are submerged and hardly visible, may be the subjects of attacks of inflammation. Cervical adenitis may be noted in connection with them. Such tonsils, regardless of size are simply diseased lymph-nodes, which good sense tells us are dangerous to the whole economy, and should be removed. By removal I mean removal; not simply the slicing off the top, but thorough extirpation in accordance with the same principles of surgery which are applied to diseased lymph-nodes anywhere.

Associated with diseased tonsils in children, adenoids are frequently found. Thorough removal is indicated to permit of free nasal respiration and to remove the irritation and obstruction from the mouth of the Eustachian tube where the infection of otitis media gains entrance.

Affections of Turbinals and Septum

Among some of the conditions observed in examination of the nasal cavities are the presence of hypertrophies of the turbinals, spurs and deflections of the nasal septum. These conditions produce most of the obstructions to nasal breathing which are found in the adult. Obviously medication can do nothing for these cases until surgery has made possible the application of the medication by removal of obstructions. Removal of spurs and enough of the hypertrophy of the turbinals to permit of free breathing is obviously indicated as a general health measure in cases of nasal obstruction causing mouth-breathing. A deflection of the septum may be contributing to the obstruction, and frequently does. This should be remedied by proper operation. A hypertrophy may be seen which does not greatly interfere with respiration but which touches the septum causing pressure, greatly increased with an acute congestion. Such a condition is a frequent cause of reflex pains by pressing on the nerves. Removal of this pressure is indicated.

Polypi attached to the middle turbinal are usually the result of ethmoid disease. Purulent discharge from the region of the middle turbinate is an indication of infection in the accessory sinuses calling for drainage.

These conditions we have just considered make it plain that rational treatment of diseases of the nose and throat involves in most cases surgical interference. I would not belittle the value of proper medication, but it must have a fair chance, and that chance is most frequently afforded by a rational surgical procedure.

Some Illustrative Cases

The following cases will serve to illustrate some of the points discussed:

1. Miss T. B., age 18. Had earache frequently since childhood. Marked deafness both ears. Frequent attacks of quinsy, persisting since "removal" of tonsils a few months before. Dull expression to face. Mouth-breather. Examination shows large degenerate tonsils cut off even with pillars. Finger in naso-pharynx discovers large mass of adenoids. Operation made, cocaine anesthesia. Tonsils dissected out with scissors. Adenectomy with Gottstein curet. Hearing better at once. Free nasal breathing established. No more attacks of quinsy. Patient's general health and hearing greatly improved.

2. A. K., student, age 20. Slightly deaf. Takes cold easily, mouth-breather, talks thick (poor resonance) has hacking cough. Examination throat showed medium-sized degenerate tonsils, elongated uvula, chronic pharyngitis. Examination of nose: Large hypertrophy, right inferior turbinate nearly occluding nostril and pressing against septum which deviates so as to

nearly occlude other side. Operations: Removal of tonsils, uvulotomy, resection of hypertrophied turbinal and submucous resection of nasal septum. Results: Good breathing space. Cough disappeared, pharyngitis improved markedly, quality of voice improved. He now has very good resonance and has gained in weight several pounds.

3. Mrs. A., age 35. Cold easily. Has bad attacks of hay fever each year. Sleeps poorly on account of nasal obstruction. Examination: Middle turbinals considerably enlarged, pressing against septum. Operation: Excision of hypertrophic tissues. Results: Sleeps well. Sense of constant pressure relieved. Had a light attack of hay fever since. (Operation was done about two weeks before the "hay-fever season" opened). Attack was relatively mild and easily controlled by suprarenal extract.

4. A. S., age 55. Had frequent neuralgic attacks of great severity for many years, worse when he had cold. Middle turbinals hypertrophied and very sensitive at point in contact with septum. Removal of hypertrophy. Neuralgic attacks disappeared with no recurrence after a lapse of several months.

Neurasthenic Symptoms Cured

5. Mrs. B. Neurasthenic. Hacking cough. Afraid of consumption. Melancholy. Family physician fails to find any lesion in chest. Normal tonsils. Chronic pharyngitis, with copious post-nasal discharge. Partial mouth-breather. Marked hypertrophy of middle turbinals. Nasal mucosa in this region very sensitive. Tenderness over frontal sinuses marked when she has a fresh cold. Has dull headache between eyes constantly and frequent neuralgias. Operation: Resection middle turbinals and curetment of ethmoidal cells. Result: Cough disappeared. Headaches and neuralgias disappeared. Post-nasal discharge practically disappeared. General health of patient greatly improved and melancholy dissipated. No further fear of consumption.

6. J. W., farmer, age 25. Has incipient tuberculosis. Mouth-breather. Referred by his physician for operation to give breathing-room. Examination: Cystic enlargement of middle turbinal left side causing deflection of septum. Purulent discharge from region of tumor. Operation: Removal of tumor and middle turbinal. Curetment anterior ethmoidal cells. Submucous resection of septum. Good breathing-space established. Discharge disappeared. General health of patient improved under treatment by family physician, who attributes a great measure of the improvement to the restoration of proper breathing.

7. M. S., age 53. Nearly blind with corneal ulcers of both eyes. Had treatment several years ago for stenosis of lacrymal duct. Both lacrymal sacs full of pus, having been that way for a long time. Has had several attacks similar. Probe can be passed through into nose. Examination of nose shows complete obstruction due to greatly hypertrophied middle turbinals. Operation: Removal of cystic tumors of each middle turbinal and curetment of ethmoidal cells. Removal of pressure permitted lacrymal sac to drain normally. Corneal ulcers healed readily, and no further attacks occurred.

Some Concluding Points

In conclusion I wish to emphasize again the following points:

We should appreciate the importance of conditions of the nose and throat which are commonly classed together as "catarrh."

These conditions may be serious not only to nasal structures but to the eye, ear, lungs and general health.

Mouth-breathing exposes the lungs and tonsils to infection.

Diseased tonsils are traps to catch infection.

Intranasal pressure and irritation is a common cause of neuralgia.

Most nasal troubles which come to the physician for treatment call for surgical treatment.

Every doctor should make the examination of the nose and throat a routine part of examinations.

Medication of the nose and throat will not take the place of surgery, which is often essential.

::: SURGICAL THERAPEUTICS :::

AESCULIN IN HEMORRHOIDS.

When a patient will not submit to operation for piles, suppositories of tannic acid may be ordered or an ointment prescribed; but better results may often be obtained from laxatives (cascara preparations are much better than anything containing aloes—a drug which aggravates hemorrhoids and often causes much anal irritation and itching) and from aesculin. This glucoside is the active principle of the horse-chestnut, a bitter tonic and stimulant to the circulation, having especial tendency to overcome stasis in the portal circulation—including the hemorrhoidal veins. It is obtainable in granule form, each granule containing 1 milligram (gr. 1-67). From three to five of these may be ordered every two hours until the burning and itching is relieved.

INJECTION OF HYDROCELE.

When a patient will not submit to the simple, safe (in aseptic hands) operation for hydrocele the injection method may be tried. The best fluid is tincture of iodine in full strength. Some prefer half iodine and half pure phenol (carbolic acid). The scrotum is thoroughly scrubbed and dried, washed with sulphuric ether and rinsed with 65 per cent alcohol; then surrounded with a sterile towel, preferably taken from the boiler in which the trocar, canula and hypodermic syringe have been cooked. The trocar and canula are thrust into the sac, avoiding wounding of the testicle, and the fluid allowed to escape. Then the iodine is injected either through the canula or with the hypodermic needle introduced through the same hole. The sac is gently rubbed so as to distribute the iodine and the external opening is closed with collodion. The inflammatory reaction is not severe, but adhesion is sometimes secured between the scrotal and the testicular layers of the tunica vaginalis with final obliteration of the sac.

FEVER AFTER OPERATIONS.

Shortly after very serious operation the temperature rises to 99½° to 100½°F; and remains elevated for some hours. It is dependent upon the absorption of the fibrin-ferment of the blood left in the wound even in spite of drainage perhaps; and need not be regarded seriously. But if the fever continue more than twenty-four hours it should be looked after—it usually means either (1) malaria or (2) staphylococcus or other pus-infection. If a microscopic examination of the blood be made the plasmodium should be revealed whenever malaria is the cause; when a microscope cannot be utilized it is best to administer four 5-grain capsules of quinine—one every four hours until five have been taken. Many patients suffer from "latent malaria" and an accident or operation merely arouses the plasmodium into an activity which is recognizable.

ACUTE SYNOVITIS.

Acute synovitis may be treated by compression with bandage or may be surrounded by the kaolin and glycerin compound (U. S. P.). Later lead and opium may be used, applied hot, the joint covered with flannel and rubber tissue over all. Later, if effusion persist, the serum may be removed through a large needle. The skin must be prepared with extreme care (as thoroughly as for an abdominal section—indeed at the knee more carefully, because opening of the knee-joint is more dangerous than cutting into the belly); the needle must be boiled just before

using; and the hands must be perfectly cleaned, or rubber gloves used. After withdrawal of the fluid the opening must be closed by collodion or a pad of sterile gauze. Internally one may use the acetanilid compound of the U. S. P.:

Acetanilid	70.00
Caffeine	10.00
Sodium bicarbonate	20.00

A half-gram (seven grains) may be ordered three times a day, either alone or with a half grain of codeine sulphate. The bowels must be kept open.

POST-OPERATIVE PHLEBITIS.

Just why thrombosis of the femoral vein should follow an abdominal section has not yet been made clear by pathologists; yet phlebitis is not at all infrequent after the abdomen has been opened for even non-infective conditions like fibroid tumor. Strange to say the left thigh is most often involved even though the operative work is limited to the right side of the pelvis, as in appendicitis. On the fifth to eleventh day the patient complains of pain in Scarpa's triangle, the thigh begins to swell and great tenderness of the entire thigh as well as of the calf quickly follows. The temperature rises to 100° or 101°F and the patient is very uncomfortable and restless. Within thirty-six hours the picture of "milk-leg" or phlegmasia alba dolens of the old writers is complete. The trouble lasts for about two weeks, under favorable conditions; but may go on to suppuration and general sepsis in the worst cases. Bandaging and other forms of compression must be avoided, although they afford comfort, because they may cause detachment of the clot with fatal pulmonary embolism. It is best to apply heat by means of the hot-water bag, or by flannels wrung from very hot water and covered with oiled silk. Some of the kaolin and glycerin compounds with thymol spread on cloth and covered with rubber-tissue afford relief and make the patient feel that something is being done for him—a matter of great importance because subjects of this disease become very much discouraged. The cataplasma kaolini of the U. S. P. is excellent:

Kaolin	577.00
Boric acid	45.00
Thymol	0.50
Oil wintergreen	2.00
Oil peppermint	0.50
Glycerin	375.00

Internally three grains of quinine, two of acetanilid and an eighth of sulphate of codeine may be given every three hours, for the first day; after that small doses of aconitine or of veratrine are of benefit, with a sufficient quantity of sulphate of codeine to relieve suffering. The bowels must be kept loose with citrate of magnesia or saline laxative. During convalescence small doses of iron and arsenic are of value, with port or sherry before each meal.

SULPHIDE OF CALCIUM IN SUPPURATION.

It is hard to explain how a purely local process like the discharge of pus from a sore may be affected by medicines given internally; but clinical evidence is abundant that when an infected wound is discharging a thin, watery, nasty pus and persistently refuses to granulate and heal, the use of sulphide of calcium will soon effect a marked change. Under its influence the discharge becomes at first more abundant but soon diminishes and the pus becomes thick and creamy—the "laudable pus" of older writers —the pus which is present upon a healthy wound granulating under staphylococcus infection only. The best dosage is five centigrams (about a half grain) in form of a granule four times a day.

PREVENTION OF CANCER.

While we have not yet learned the remote cause of cancer, certain things have been demonstrated as the direct cause; an avoidance of these may prevent the appearance of the malady in those predisposed to its development, as well as ward off a return in those patients who have been subjected to operation. The directions given

by Keetley are: (1) Sterilize all food. A large proportion of cancers attacks the alimentary canal, and especially the parts where food and feces tarry. (2) Insist upon sufficient and regular toilet and protection of the nipples and of the genitalia. It is significant that these organs are especially often polluted by stale secretions and discharges, and are more frequently handled by their owners than any other part of the person usually covered by clothing. (3) Order due care of the mouth and teeth. (4) The dressings of discharging malignant sores and tumors should be burned, and patients and attendants must be instructed especially not to pollute either the fingers or the underlinen. (5) Non-malignant sores and tumors should be cured, and especially not allowed to drift on if chronic. (6) Cancerous and doubtful tumors and ulcers should be excised promptly. (7) Abstinence should be practised from alcohol, tobacco, and from foods which leave waste products, of which the kidneys, the bowels and the skin can not easily and thoroughly get rid, and which thereby provoke and sustain the chronic inflammations and ulcers which so often pave the way for cancer. (8) Physical familiarity should be avoided, except with those who are nearest and dearest to us. (9) Much thought should be given, especially by mistresses and housekeepers, to the service as well as to the cooking of food, with a view to disease-prevention. Special attention should be paid to the sterilization of milk and its products: cheese and butter.

IODINE FOR GOITER.

Bronchocele not sufficiently prominent to demand excision may be greatly reduced by the use of iodine. Perhaps the best way is to apply externally, by means of a camelshair brush—using tincture of iodine to which has been added just enough aqua ammonia to decolorize. A little of this "colorless tincture of iodine" used twice daily will often cause almost total disappearance of a goiter not cystic. It may also be made to enter the deep tissues by cataphoresis (negative pole of a galvanic battery), enabling one to get speedier results. Or from five to fifteen minims may be injected into the fibrous tissue by hypodermic syringe. Great care must be exercised in such injections because if the iodine is thrown into the connective tissue instead of the gland, ulceration will follow with ugly scar-formation.

TO INCREASE EXCRETION OF UREA.

In many surgical conditions there is a deficient excretion of urea. One of the most highly recommended remedies for this is boldine, the alkaloidal active principle of boldo leaves. This is said to speedily increase the production of urea and expedite the excretion of solids by the kidneys. The usual dose is one milligram (1-67 grain) every three hours, or two milligrams four times a day. It may be prescribed also when there is an insufficient flow of bile.

AN EXCELLENT ANTISEPTIC.

A most useful antiseptic to use for douches, irrigations, etc., is the "liquor cresolis compositus" of the United States Pharmacopeia. It is of the same strength as "lysol" and may be used by those who prefer a non-proprietary preparation. The formula is:

Cresol	500.00
Linseed oil	350.00
Potassium hydroxide	80.00
Water, to make	1000.00

Mix. Mark "Poison." It is about the same strength as carbolic acid. Solutions of 1 to 40 of water are highly germicidal.

POST-OPERATIVE PAIN.

The temptation to use morphine to allay the pain following serious operation should not be yielded to save in extreme cases; morphine locks up the secretions and obscures symptoms which may be of importance. For the ordinary pain one grain of phosphate of codeine may be given hypodermically and repeated every four hours as long as may be necessary—it does not give rise to "habit" as does morphine. For pelvic pain two

grams (30 grains) of antipyrin may be given with good effect—dissolved in four ounces of starch water and thrown into the rectum. If morphine must be given it is least objectionable in the "anesthetic tablet" of morphine gr. 1-4, hydrobromide of hyoscine gr. 1-100 and cactin gr. 1-67, used hypodermically, repeated in four to six hours if needed.

TO ABORT A FELON.

Over a forming whitlow apply absorbent cotton saturated with alcohol, and cover with a piece of rubber-tissue (or even a large finger-cot) in such a way as to exclude the air. In from sixty to seventy-two hours relief will be complete, and a cure effected in a majority of cases—practically all if seen early.

FOR PYURIA.

When the flow of pus is excessive in suppurative pyelitis as well as when excessive amounts of albumin are passed in nephritis a marked diminution may be produced by arbutin (the glucoside, active principle of uva ursi—a drug for long used in crude forms as a diuretic and tonic to mucous membranes). The dose is from one to five grains every two or three hours.

GYNECOLOGICAL THERAPEUTICS

APPENDICITIS IN PREGNANCY.

What shall be done in a case of appendicitis occurring in a woman well advanced in pregnancy? If the case be mild it may be treated by medicines alone; if severe there need be no hesitancy about operating; and the operation should be the same as in any other patient. If the work be done under hyoscine-morphine-cactin anesthesia (two doses plus a little cocaine for the skin or chloroform if needed) there should be little danger of premature labor. The uterus is simply held to the left side of the belly by an assistant while the appendix is removed or the abscess opened and packed. If labor does appear the wound should be well protected and supported by two or three strips of adhesive plaster and a wide binder firmly applied.

ACNE FROM GENITAL IRRITATION.

Young women often seek relief from a distressing eruption of the skin of the face. The pimples consist of numerous small elevations, frequently much reddened (though often not) with or without a minute pustule on the summit; the skin after a time losing its natural transparency. It is a form of acne—usually dependent upon menstrual disorders, and much worse at the time of the menses. But it may originate in any genital irritation—such as masturbation—and is not infrequently met in boys as well as girls about puberty. It generally disappears after marriage; or by removal of the source of irritation. Emmenagogues rarely cure. It may be relieved by the following:

Sulphur .....4.00 (dr. 1)
Glycerin .....32.00 (oz. 1)
Rose water.....224.00 (ozs. 7)

Mix and apply two or three times a day. Eruptions which have persisted for years will ofttimes be completely relieved in a few weeks by this treatment.

STONE IN THE BLADDER IN WOMEN.

When cystitis or irritable bladder in a woman depends upon stone, the source of irritation must be immediately removed. If the calculus is very small it may be caught in thin forceps and removed through the urethra. Large stones were formerly crushed and the fragments removed by repeated washings of the bladder, but under such treatment the cystitis often persisted for months or even years. Therefore the

best procedure is suprapubic cystotomy with tube-drainage for some days or weeks. After the stone has been removed through the suprapubic wound the bladder is brought up and sutured to the skin on each side, the hole closely packed with gauze and a catheter inserted through the urethra. On the third or fourth day the gauze and catheter are each removed and a drainage-tube put in the wound. Daily the bladder is washed, the fluid being thrown in through the urethra and allowed to escape by the wound. This is continued until the wound heals by granulation.

FOR AMENORRHEA.

Amenorrhea at puberty frequently depends upon imperfect development of the uterus; it is usually associated with anemia and pronounced inactivity of the lower bowel. In such cases the character of food must be improved, the quantity of fruits and vegetables increased, and the obstinate constipation overcome by outdoor exercise and laxatives; sometimes strong cathartics being required at the outset. In these cases Abbott's slogan, "Clean out, clean up and keep clean," is a good rule to follow. After thorough elimination has been established iron and arsenic are both indicated.

GLYCOSURIA OF PREGNANCY.

Many physicians in the past have become alarmed at the discovery of sugar in the urine of pregnant women. But it has been found that some women in perfect health become temporarily glycosuric during pregnancy. Here, then, as in other fields of medicine, the doctor must remember there is a difference between diabetes and glycosuria; but it must be admitted it is a most delicate matter to decide where the glycosuria of pregnancy ends and where true diabetes begins. One is a benign and transitory affection in which no treatment is required, while in the other prognosis is grave; hence differentiation is extremely important. The most distinctive point is that in glycosuria of pregnancy the amount of urine is not increased. Besides, it is not associated with loss of flesh, with great thirst, or with morbid hunger (though this is sometimes present—from the "cravings" of pregnancy, not diabetes). Finally it disappears as soon as labor is ended—or rather as soon as lactation is established. In true diabetes of mild type gestation will go on to term in a normal way, but in the acute and subacute types, abortion or premature labor is to be feared. In the majority of cases of diabetes there is cessation of symptoms during the first half of gestation and then suddenly an aggravation of the pre-existing symptoms takes place. It is about this time that such accidents (especially hemorrhage) as are due both to pregnancy and to diabetes, arise; and then the prognosis becomes exceedingly bad.

A GOOD SEXUAL DEPRESSANT.

For the control of nymphomania, as well as depressant of eroticism or erethism in morbidly excitable patients who are compelled by circumstances to observe enforced continency the following combination may be prescribed:

Calcium sulphide 0.01
Salicin 0.01
Camphor monobromide 0.01

These may be obtained in granules of one-sixth of a grain each, or may be dispensed in capsules with some convenient vehicle. If in granules the dose is one or two every four or six hours. Four may be taken a little before bedtime so that erotic dreams and sensations may be avoided during the hours of sleep.

DYSMENORRHEA.

An excellent prescription for dysmenorrhea is ten grains of bromide of sodium and five grains of antipyrin given in simple elixir; or the antipyrin may be added to the official elixir of bromide of potash. The dose may be repeated in one, two or three hours, if needed; and a third dose later will do no

harm. It is far better in most cases than any form of opium and unlike the latter drug has no bad effects. It should be given at the beginning of the seizure to obtain best results. If the patient be anemic it will not be so efficacious.

ANEMONIN FOR DYSMENORRHEA.

Anemonin, a camphor derived from pulsatilla, seems to have a special field of action on the generative system: increasing power, relaxing spasm, and (when given near the menstrual period) producing a free flow. It may therefore be administered in those cases of dysmenorrhea accompanied by spasmodic pains, particularly when associated with a tendency to amenorrhea. It is best employed in the form of granule containing a half milligram (.0005 or gr. 1-34); one to be taken every half hour during the acute stage and one three times a day at other times.

FOR VOMITING OF PREGNANCY.

When a pregnant woman is very nervous, especially if there be a hysterical tendency, her vomiting may usually be completely controlled by application of a small fly blister, over the fourth dorsal vertebra.

"NERVOUS IRRITATION" IN WOMEN.

There is a group of symptoms, ascribed by some neurologists to "spinal anemia," for which the average gynecologist wants to curet, or to use "local applications" or tampons. Both are wrong. The woman is generally resident in a large town or city; she becomes highly nervous and irritable, especially at the menstrual period; with vague pains in the ovarian region and back; complains of great despondency, or may even dream of suicide; is annoyed by her children and distressed by noises; her sleep is broken and troubled; her mind rambles and she fears insanity. This woman needs no nerve-specialist, nor gynecologist; she is merely suffering from too intense nervous strain—aggravated sometimes by some grief, worry, anxiety, over-work, deficient sleep, imperfect hours of failure to perform the sexual act perfectly. A few doses of bromide of potassium will completely relieve her provided the immediate source of irritation be removed, as by change of surroundings for a few days. "Going home to mother" for a little visit will do more good than all the curets and pessaries ever made; and a few doses of bromide will do the rest.

CODEINE IN ABDOMINAL SURGERY.

One of the most useful drugs in abdominal work is codeine phosphate. The phosphate is preferable to the more common sulphate on account of its free solubility—of particular importance for hypodermic medication. It is the best of all preparations of opium because (1) it does not check secretions like morphine, (2) a codeine habit is not easily formed and (3) it does not produce the distressing secondary nausea of other opiates. After an abdominal section when the patient complains bitterly of pain and general discomfort fifty centigrams (from a half grain to a grain) may be injected and repeated in an hour if necessary. It being mildly anodyne and hypnotic the patient generally feels sufficiently comfortable after two doses not to require a third for some hours, when the two doses one hour apart may be repeated.

PAIN OF ABSCESSES.

For the relief of the pain of a forming abscess or carbuncle, belladonna is more efficacious than opium. Ichthyol seems also to possess remarkable properties of similar effect. A most excellent prescription is:

Ichthyol	10.00
Ext. belladonna	40.00
Glycerin	50.00

Mix. Smear on flannel abundantly, apply to the sore, and cover with oiled silk, a pad of cotton and a bandage. It may be changed every three or four hours.

DEPARTMENT OF
DERMATOLOGY, VENEREAL AND SEXUAL DISEASES
WITH A REVIEW OF THE LITERATURE OF THE WORLD
In charge of Dr. WILLIAM J. ROBINSON.
Address all communications designed exclusively for this department to
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GONORRHEA AND ITS COMPLICATIONS

This is the fourth of the series, "Informal Chats with the General Practician"

By WILLIAM J. ROBINSON, M. D., New York

TREATMENT OF CHRONIC URETHRITIS.

CHRONIC gonorrheal urethritis is certainly one of the most tedious and sometimes one of the most thankless affections which we are called upon to treat. This statement will be readily corroborated by every specialist who has a large practice and who is not satisfied to consider a gonorrhea cured because the discharge has ceased.

Before entering upon the treatment we wish to say a word about over-treatment of chronic gonorrheal urethritis. It is almost a daily occurrence with us to see patients whose only trouble is over-treatment by their physicians or themselves. The urethra is a tender organ and it will not stand constant dilations, injections, irrigations, etc., without replying to the insults with a catarrhal irritation. When a patient presents himself, in whom after examination and the history I suspect the chief or only trouble to be over-instrumentation, I give him just a mild urinary antiseptic internally (generally a combination of urotropin and arbutin) and tell him to come back in two or three weeks. And at the end of that period such patients are generally either entirely well or practically so. This prefatory remark is very important. If a doctor has a case which seems to resist the most energetic treatment, let him cease all treatment for two or three weeks, and he may be surprised at the result.

Tedious and long as the treatment of chronic urethritis is, it is quite simple. It may be expressed in three words: Irrigation, instillation, dilation. The drug par excellence in chronic urethritis is silver nitrate, with protargol as second choice, or as alternate. And with this drug alone, properly used, we can cure all or practically all our cases. For irrigation I use it in the strength of 1 in 10,000, increasing gradually to 1 in 1000. By increasing the strength very gradually, we avoid irritation with the consequent discharge, strangury, etc. The amount used per irrigation differs from 8 to 32 ounces (250 to 1000 Cc.). This irrigation is repeated twice a week, as a rule, but never more than three times. In some cases once a week suffices. The entire urethra is irrigated, for while in the acute disease we distinguish between anterior and posterior urethritis, there is practically no line of demarcation in the chronic variety. The entire canal is more or less affected. If the neck of the bladder also shows signs of implication in the gonorrheal process, the bladder is also irrigated. The "instruments" used are a Mitchell return catheter and a 4 to 8-ounce hand syringe. But lately I have done away with the cath-

eter almost entirely and find I can accomplish everything that is needed with the syringe alone. My principle is to go with an instrument into the urethra, be that instrument even nothing more than a soft catheter, only when we can not avoid doing so. By closing the meatus firmly over the soft rubber tip of the syringe and by applying pressure in the perineum, we can dilate the urethra to its utmost capacity so that the fluid reaches every fold, every opening, every follicle.

Where endoscopic examination shows the presence of localized patches of inflammation or erosion, there topical applications, applications to the spot, are indicated. The applications may be made by the aid of a cotton carrier or by instillation with a Guyon syringe. The strength of the silver nitrate solution should be from one to two per cent, but may be as high as three per cent. If protargol is used the strength should range from 5 to 10 per cent.

What the exact rationale is of treatment by sounds is not well known, but there is no question that the sounds and dilators—if not abused—have a remarkably beneficial effect on the course of chronic urethritides—gonorrhea, gleet and simple catarrh. But I do not believe that the effect can amount to much if we leave the sound a minute or two, as some advise. I leave the sound in from fifteen minutes to an hour; the dilator from ten to thirty minutes. The superiority of the dilator over the sound lies in the fact that the former can be passed through a small meatus, and then dilated in the urethra to any desired circumference, while in treatment with sounds we must perform meatotomy, if we have to deal with a narrow meatus. I do not intend to speak here of the technic of sound treatment, but it is well to remind you of the fact that you will often be able to pass a 26 or 28, when you cannot pass a 20 or 22.

While I mentioned sounds and dilators after irrigation, as a matter of fact in actual practice we first pass the sound or dilator and then irrigate. If you should attempt to irrigate first with silver nitrate, you would find that in many cases you would have great difficulty in passing the sound on account of the astringent action of the silver solution. The correct order is as follows:

(1). The patient urinates. (2). The urethra is washed out with a warm boric acid solution (2 per cent) or a 1 to 10,000 mercury oxycyanide solution. (3). The sound properly asepticized and lubricated, (with a water-soluble and not an oily lubricant) or the dilator, is passed and allowed to remain the proper length of time (see above). (4). The urethra is again washed out with a warm boric acid solution. This is necessary to wash away the lubricant which partially coats the walls of the urethra, and first prevents the silver solution from coming in intimate contact with them, and second, being of organic composition, has a tendency to decompose the silver nitrate. (5). The injection, irrigation or instillation proper is now used.

Such a treatment gives results; definite and positive results. And we, personally, do not believe that there is such a thing as an incurable case of gonorrhea or urethritis.

INCOMPATABILITIES IN GONORRHEAL INJECTIONS.

Physicians who are not thoroughly familiar with the chemistry of the products they prescribe, with the decompositions they are likely to undergo, the new compounds they may form, should best stick in their prescriptions to one chemical, unless they are sure the formula is right. Within one month two striking examples of incompatibility were brought to my notice. In one instance the physician prescribed protargol and zinc sulphate in one injection, in the other argyrol and zinc sulphate. The intention was a laudable one. The physician wanted to combine the gonocidal effect of the silver compound with the astringent effect of the zinc salt. But hell is paved with good intentions, and the prescribers defeated their object entirely, by decomposing the silver salts and producing a very irritating mixture. At any rate, when I saw the patients their urethral canals were

very sore and they stated that they became so after the use of the injection.

Another well-known incompatible atrocity of which some physicians are guilty is the prescribing together of silver nitrate with cocaine hydrochloride or even sodium chloride. A precipitate of silver chloride is formed which destroys the astringent and bactericidal properties of the silver nitrate.

I do not mean to claim that every combination which produces a precipitate is worthless and can not be used in medicine. On the contrary, we sometimes deliberately prescribe two salts which mutually decompose each other and form a precipitate. As an example I will mention the well-known prescription of zinc sulphate and lead acetate. Both these salts are perfectly soluble in water, but when their solutions are mixed, a double decomposition takes place, and lead sulphate precipitates while zinc acetate remains in solution. The following equation shows the reaction plainly:

$$\underset{\text{Zinc Sulphate}}{ZnSO_4} + \underset{\text{Lead acetate}}{Pb(C_2H_3O_2)_2} = \underset{\text{Lead Sulphate}}{PbSO_4} + \underset{\text{Zinc acetate}}{Zn(C_2H_3O_2)_2}$$

But only he should venture to prescribe several compounds in the same mixture, who knows what he is about. Otherwise he may have some unpleasant surprises.

FAMILY ENURESIS.

That nocturnal enuresis may be present in an entire family is seen from a report of Dr. Stern (*Central. Harn-Sexual Org.*, Oct. 1906). The father was a neurasthenic, and the mother suffered with enuresis when a child. All five children were sufferers from this disagreeable affection. According to the author the cause of enuresis is to be found in a hypoplasia of the spinal or ganglionic center, which controls the innervation of the vesical sphincter.

THE TREATMENT OF INCONTINENCE OF URINE.

Bed-wetting is not only a sad affliction *per se*, but it is a danger signal telling us that that person's genitourinary system is unbalanced and requires treatment. It was Trousseau who many years ago pointed out the relationship of bed-wetting in children to sexual disorders in later life, and it is therefore our duty to treat every case of incontinence, especially in male children, and treat it energetically until the disorder is cured. It is not my object in this note to review the treatment in all its details, to call attention to hydrotherapy, electricity, suggestion, proper diet, limitation of drink after 4 p. m., etc. Here I only wish to call attention to the medicinal treatment, which in my hands has proven highly satisfactory. The term "highly satisfactory" is rather hackneyed with use, but it expresses just what I want to say. The results were highly satisfactory to the patient, and also to myself, because in many instances I could trace the effect pretty directly to the drugs, and not to the adjuvant measures employed.

The treatment consists in the administration in various combinations, and in various ways, of four drugs: arbutin, artopine, strychnine and hydrastine. The average dose of arbutin that I give in such cases is 1-2 grain; of atropine sulphate gr. 1-250; of strychnine sulphate 1-130, and of hydrastine hydrochloride gr. 1-10. All these remedies may be given together in solution, or they may be made up into pills or capsules, but the best way is to give them separately in the form of pills or granules, as we are then in a position to increase, diminish or leave out altogether any ingredient that we think has done its work. The atropine, strychnine and hydrastine should be given three to five times a day, but the arbutin may be given every two hours or even every hour. Sometimes I prescribe the three alkaloids in the form of suppositories:

Atropinae sulph.....gr. 1-250
Strychninae sulph.....gr. 1-15
Hydrastinae hydroch.....gr. 1-4
Ol. theobromae..... gl. 12
M. Ft. Suppos. No. 1. Insert one twice or three times a day.

In older children I use my solution of strychnine and hydrastine, which has the following composition: Strychninae sulph. gr. 1, hydrastinae hydrochl. gr. 10, aquae

destill. gtt. or min. CD (400). I instill one to two drops in the prostatic urethra or near the neck of the bladder.

I have no seven thousand cases to report, but the twelve or fourteen cases that I have treated with the remedies outlined above (plus other adjuvant measures) have *all* been cured.

P. S. I will take this opportunity to call attention to a little measure in the treatment of enuresis, which is quite effective in numerous cases and which may not be known to many of our readers. This little measure consists in coating the meatus and a portion of the glans with some collodion. A layer is formed which closes up the meatus, and the pressure of the urine which finds no exit wakes the child. The layer of collodion is easily removed with the fingers.

VAGINITIS IN CHILDREN.

Dr. B. K. Rachford read an interesting paper on the subject before the Cincinnati Academy of Medicine (*Lancet-Clinic*, Dec. 1), detailing therein his experience with an epidemic of gonorrheal vaginitis that occurred in the children's wards of the Cincinnati Hospital. The treatment which proved most successful in handling those obstinate cases is as follows: The external genitalia are carefully washed with a 1:1000 corrosive sublimate solution, and two quarts of a saturated sol. of boric acid is injected through a small glass catheter. This is followed by the injection of three ounces of a 1 per cent solution of silver nitrate. Under this treatment, which is given twice a day, the vaginal discharge clears up more rapidly than under any other the author has ever used. When the discharge ceases and no gonococci are found—which usually occurs within one week—the treatment is continued unchanged for two weeks and then the silver solution is increased to 2 per cent and sometimes to 3 per cent. These stronger solutions preceded by the boric acid irrigation are kept up for ten days and the cases are then transferred to another ward for observation.

The measures taken to prevent contagion are as follows: All new cases having vaginal discharge are isolated until the microscope confirms the diagnosis. The clothing, linen, etc., in this ward are soaked in bichloride solution before they are sent to the wash. All children wear diapers holding pads of gauze covering the genitalia, which are changed frequently and destroyed by burning. The nurses, under careful directions, keep their hands thoroughly cleansed by frequent sterilization. and are informed as to the possible complications of gonococcus infection, so that they may carefully keep watch for them. The bath-tub is no longer used for bathing purposes; the water-closets and seats are washed with soap and water, and then with bichloride solution after each individual use. Each patient has a separate bed-pan, catheter and other instruments used in the treatment. These are washed and carbolized after being used and the catheter and instruments placed in separate bottles, containing carbolic acid solution and labelled with the child's name.

SILVER OLEATE IN GONORRHEA IN THE FEMALE.

Dr. W. Ipsen of the Frankfort City Hospital (*Arch. Dermat. Syphilis* Vol. 82, No. 1) reports on the use of a new silver compound in about 2,500 cases of gonorrhea in women. The results were very favorable. This compound, or rather mixture, is prepared as follows: Silver nitrate dissolved in distilled water; ammonia water added drop by drop until the precipitate that has formed is completely dissolved. This gives us an ammonio-argentic nitrate. To this solution enough ammonium oleate (ammonia soap) is added to form a solution containing 5 per cent of silver nitrate. This solution which has a syrupy consistence and a slight ammoniacal odor is but slightly irritant and is, according to the author, very serviceable in the treatment of gonorrhea in women. It is generally diluted with four

parts of water, so as to make the solution contain 1 per cent of silver, but in obstinate cases it may be used up to full strength. In the treatment of gonorrhea the vagina is irrigated several times daily with potassium permanganate solution (1 to 2,000), the urethra is injected with a 1 to 3,000 silver nitrate solution twice a day, while once a day the urethral canal is swabbed with the silver oleate mixture (1 per cent) by the aid of cotton wrapped on a sound. In cervical gonorrhea the cervix is cleansed with a 5 per cent borax solution, and is then swabbed with silver oleate full strength (5 per cent) on a cotton carrier. Gonorrhea of the rectum is treated in the same manner. In bartholinitis, the solution is injected into the gland by the means of a hypodermic syringe.

INTERNAL TREATMENT IN GONORRHEA.

Every once in a while we come across the statement that it is useless to administer antiblenorrhagics per os in the treatment of gonorrhea. Some give as a reason that the antiblenorrhagics cannot reach the gonococcus; others come at us with the statement that even if the internal remedies, balsamics, etc., did come in contact with the gonococci, they would not destroy them, for it has been shown experimentally that the balsamics have no inhibiting action on the diplococcus of Neisser.

How any one who has had any kind of experience in the treatment of gonorrheal urethritis can make such a statement has always been beyond my comprehension. To me the favorable effects of internal remedies on the course of a gonorrhea are so positive, so unmistakable that I cannot find any explanation, except perhaps the one that physicians who are making such statements were using exceedingly impure, adulterated and substituted drugs. There is, for instance, a sandalwood oil sold in some drug stores which has no more effect on gonorrhea than so much cottonseed oil. The same is true of balsam of copaiba.

But to return to the statement that the internal balsamics cannot be useful in gonorrhea, because they have no bactericidal action. How many times will we have to repeat that it is not at all necessary that a remedy should have a bactericidal action in order to be useful in bacterial disease? How many times will we have to repeat that the soil is just as important as the seed? A good healthy soil, a good healthy tissue, can as a rule lead a successful combat with most pathogenic germs. And in order to cure a disease due to bacterial invasion we have two methods of attack: We either kill the germs directly if we can get at them, or we endeavor to render the tissues so healthy, so normal, that they are themselves capable of eating up, destroying the invading germ.

In the treatment of gonorrhea we use both methods: Our silver nitrate, protargol, and potassium permanganate solutions have a direct destructive effect on the germs, while our internal remedies—santal oil, copaiba, cubebs, arbutin, calcium sulphide, urotropin, etc.—render the urine and the urinary canal sterile, diminish the inflammation and secretion, in short put the tissues in a *healthy* condition, which is a very *unhealthy* condition for the cocci.

There is nothing so injurious in medicine, nothing so obstructive to the progress of therapeutics, as Preconceived Ideas. Let us free our minds from them—or give up the practice of medicine.

AN INTERESTING CASE OF ECZEMA.

The following case showing the connection of cutaneous diseases with internal disorders is so instructive that it is worth a careful perusal. The case was reported by Drs. Boulloche and Grenet (*Gazette des Hopitaux*, June 26, 1906). The patient was a child 14 months old that had suffered with eczema of the face from the first month of its life. The eczema was moist, running, but it was not impetiginous in character

and there were no excoriations. No local treatment of any kind had been employed. The child was nursed up to nine months and was now nourished with milk, boullions, etc., and had no digestive disturbances of any kind. One day the eczema disappeared spontaneously. At the same time the child became feverish, restless, constipated and began to vomit. Later on the child fell into a condition of collapse and coma. There also developed absolute anuria. This condition, now getting better, now worse, lasted for seven days, when the child began to pass abundant quantities of urine and its condition became normal. *At the same time the eczema reappeared on the face.*

BARBER'S ITCH.

We learn from the *Jour. of the Minn. State Med. Ass.* that barber's itch is prevalent all over the state and that the etiology is to be found in the barber shop. "One barber shop in one of the larger cities has spread the itch over a large community." This is certainly a serious state of affairs. The full gravity of barber's itch can only be appreciated by the patient and the specialist. Going to the barbers to get shaved is an anachronism anyway. Every one old enough to need a shave is old enough to perform the function upon himself. The barber shop is responsible for more diseases than the barber's itch. Even syphilis is not such a remote possibility, and it is about time that the people be taught to patronize the barber as little as possible, and that barber shops be taught cleanliness and antisepsis.

En passant, we will remark that hot applications on compresses of a one per cent solution of resorcin are very useful in barber's itch or sycosis.

THE PLACE OF IODIDES IN SYPHILIS.

The question of the relative value of mercury and the iodides in syphilis is not fully settled yet, strange as it may seem. Some physicians pin their faith to mercury exclusively, not only in the secondary but also in the tertiary stage, while others are "afraid" of mercury, and rely entirely on the iodides. Dr. Pautrier while admitting that mercury is *the* specific in syphilis makes a plea for the iodides. His arguments are sound and his statements represent, in our opinion, the consensus of thought of the best syphilographers. It is true, he says, that there are certain disadvantages in using the iodides, but these drawbacks have been greatly exaggerated. It is also true that in a few rare cases the bad effects are so marked that the drug has to be discontinued, but these cases are the exception and not the rule. If the daily observation of cases proves to us that iodides alone cannot effect the disappearance of cutaneous and mucous lesions of secondary syphilis, it also proves to us that there are a certain number of morbid symptoms, unaffected by mercury, which disappear rapidly under the use of the iodides; these latter are the painful symptoms of the secondary stage: arthralgia, myalgia, osteocopic pains, cephalagia with nocturnal exacerbations.

Clinical experience also teaches us that in the tertiary stage, where mercury is often ineffective or not sufficiently active, marvelous effects often result from the administration of a combination of mercury and iodides, especially in the case of cutaneous and mucous gummata, exostoses, ulcerating and forming syphilides. Most all physicians have, some time or other, effected with the iodides cures that to the patient seemed miraculous. . . . Mercury is undoubtedly the specific for syphilis—the iodides cannot take its place—but they should not on that account be eliminated from the list of therapeutic agents. They are specially indicated to combat certain symptoms which mercury alone cannot overcome, and are very useful in preventing the symptoms caused by syphilis of the blood vessels. We are consequently justified in continuing to administer them in fairly strong doses (30, 60, and 90 grains) at short intervals, when intended as a curative agent, and in small doses, long continued,

when employed as a preventive medicament.

MAY SYPHILIS ABORT IN THE PRIMARY STAGE?

Under the above caption Dr. Robert W. Taylor discusses this important question. Most physicians who treat large numbers of venereal patients have met with cases of undoubted chancre, so far as appearance was concerned, in which secondary and tertiary manifestations of any kind failed to make their appearance, and this without any specific treatment whatever. In such cases the physician is apt to assume that his diagnosis of chancre was wrong, that he had to do with merely a chancroid, etc. This is however begging the question. We personally can see no improbability in syphilis being aborted in the first stage. We believe in the possibility of abortion, spontaneous or artificial, of any disease, and syphilis is no exception. The author cites ten cases, four from his own practice and six from literature, most of which offer pretty conclusive proof that a person may have a true Hunterian chancre, and with no mercurial treatment, secondary and tertiary symptoms may fail to develop. Such cases are, it is admitted, very rare, but they do occur and it is well to be aware of the fact.

FOR RINGWORM OF THE SCALP.

Ol. rusci	oz. 1-2
Tincture of green soap	drs. 3
Precipitated sulphur	drs. 3
Balsam of Peru	min. 20
Naphthol	grs. 8
Spirit of lavender	ozs. 3

THE RELATION OF AUTOTOXEMIA TO SKIN DISEASES.

In discussing the paper by Dr. J. C. Johnston, read at the recent meeting of the British Medical Association, Dr. L. D. Bulkley said that he agreed entirely with regard to the autotoxic factor in bullous and other dermatoses. He said that there could be no question as to the effects of faulty metabolism induced frequently by intestinal fermentation. In years past, when seeing large numbers of patients in dispensary practice, he continually met with numerous cases of erythema multiforme, often presenting many bullae, occurring so frequently amongst immigrants that the disease was often alluded to as "morbus immigrantium." In these cases there had been the disturbances due to ocean travel, constipation (often for a week), etc. In these the eruption yielded at once to treatment directed to liver and intestinal relief. He had for many years carried out investigations into the urine in cases of skin diseases, and he believed that there were changes in the urine, other than and often before albuminuria or glycosuria, which were of the greatest significance with regard to the treatment of many cutaneous affections.

IN RUN-DOWN SYPHILITICS.

In severe run-down syphilitics, when the ordinary forms of mercury do not seem to have any more effect, mercauro in gradually increased doses—10 to 30 min. three times a day—very frequently produces the happiest results. This statement is made from personal experience with some very striking cases.

IN SPERMATORRHEA AND SEXUAL WEAKNESS.

Besides the general treatment and the use of steel sounds and dilators, the editor of this department has used some solutions, which instilled in the prostatic urethra have produced most excellent results. One of the solutions has the following formula:

Strychninae sulph	gr. 1
Hydrastinae hydrochlor	grs. 10
Aquae destill	gtt. 400

One drop of this contains 1-400 grain of strychnine and 1-40 grain of hydrastine. By the aid of a Guyon or a Bumstead syringe one to four drops are de-

posited in the prostatic urethra. Another combination is:

Hydrastinae hydrochlor...grs. 10
Ergotini .....dr. 1
Aquae .....gtt. 600

Dissolve and filter. Dose one to ten drops in the urethra.

Still another combination is:

Strychninae sulph. .....gr. 1-4
Hydrastinae hydrochlor. ....gr. 5
Sol. adrenalini chl., (1:1000)–gtt. 100

Dose one to four minims endourethrally.

The conjoint use of arbutin is very beneficial and may be administered almost as a routine measure in every case of sexual and vesical weakness. The dose should range from 1-6 to 1-2 gr. every two hours.

Numerous readers of CLINICAL MEDICINE have on my advice given mercury tannate to their patients who could not, for one reason or another, take mercury in any other form. In every case that I have heard from, this form of mercury was borne without the slightest untoward effect, though in some cases it was given in pretty large doses.

IN DANDRUFF.

One of the simplest washes for dandruff is the following:

Chloral hydrate..... drs. 3
Glycerin .....drs. 5
Water..... .ozs. 8

It will do more than any of the patent dandruff cures, and costs but a few cents.

NITRIC ACID IN PSORIASIS.

At a meeting of the New York Dermatological Society (Sept. 25th, '06) Dr. L. D. Bulkley exhibited a woman who had been suffering with extensive psoriasis of many years' standing, and on whom every conceivable treatment was tried—sometimes with fair effect, sometimes only aggravating the disease. Pure nitric acid was administered beginning with 2—3 drops three times a day and gradually increasing. When the acid was begun almost the entire surface had been covered with large red areas, presenting an appearance of dermatitis exfoliativa; often, however, the appearance was one of typical psoriasis. The clearing of one area after another under the nitric acid was very striking. There had been no other treatment except occasional applications of lubricating ointment.

LOTIO ALBA.

Dr. J. S. asks the composition of lotio alba and its uses. Lotio alba has the following composition:

Potassae sulphuratae.....dr. 1
Zinci sulphatis.....dr. 1
Aquae destillatae.....ozs. 4
or, Aquae rosae.....ozs. 4

The reason it is called white wash is because a chemical reaction takes place when the two salts are mixed, zinc sulphide being formed and precipitating. Remember that we use potassa sulphurata or liver of sulphur and not potassum sulphate.

The lotion is used as an application in acne, in freckles, etc.

APPLICATION FOR SORES AND ULCERS.

That what is pharmaceutically or chemically incompatible is not always therapeutically inapplicable, is seen from many of our most useful formulas. The following combination is, strictly speaking, incompatible but it does excellent service in indolent ulcers, sores, phagadenic chancroids, etc:

Argenti nitratis.....grs. 10 to 30
Bals. peruviani.....dr. 1
Adipis (vel petrolati).....oz. 1

Apply on lint once a day.

In indolent leg ulcers on a syphilitic basis iodized lime (calx iodata and not calcium iodide) applied pure or in the form of a ten per cent ointment with petrolatum is very useful.

A simple and effective application for perspiring feet is to paint them at night with a mixture of equal parts of Monsell's solution and glycerin.

GLEANINGS FROM FOREIGN FIELDS

Translated by E. M. Epstein, M. D.

EXPECTORANTS

THE following is an excerpt translated from a clinical lecture by Prof. Hermann Eichhorst of Zurich. Our older subscribers are reminded of our review of the Professor's work on the Practice of Medicine, in the August number of THE ALKALOIDAL CLINIC, 1901, p. 687. We gave Eichhorst there his mede of praise as a safe guide because of the happy mean he keeps between the new and the old in medicine, and that because he is not a mere teacher *ex cathedra* but an active practician at the *bed-side*. With the same safe guidance we meet in the following lecture.—DR. EPSTEIN.

Among the expectorants, in a wider sense of the word, I would reckon first the narcotics, provided you are not strict judges of my language, for the narcotics are not what the word expectorants implies, viz., agents which expel things from the chest. And yet it would be a very incomplete treatment of our coughing and expectorating patients who complain of their cough only, which disturbs especially their nights' rest, either preventing their falling asleep or waking them from it. Expectoration is here absent or of very scanty, tough little masses. On close auscultation all over the chest you detect not the least abnormality; you are tempted to think of simulation, or at least of exaggeration, but there comes a coughing spell and you are persuaded differently. Of course you would not doubt at the start too if there were feverishness, as such cases are now and then accompanied with it.

Sometimes the laryngoscope may reveal the cause of the irritating cough. You may detect some redness in the interarytenoidal fossa or at the bifurcation of the trachea, and there may be some tumefaction and adherent secretion there, and there are places known as specially sensitive to irritable cough. But whether you do or do not make any find, when the question is to quiet an irritating cough, neglect not the narcotics. Such patients I have often relieved with these in a few days, and even in a few hours, after they suffered a long time and used many other remedies.

From my own practice I conclude that it is not indifferent as to which narcotic we use. Thus I am convinced that codeine phosphate is preferable to morphine hydrochloride because codeine controls more certainly the irritation to cough and is also better tolerated than morphine. I also give the codeine in solution with aqua amygdalarum amarum, which is of itself cough quieting. I order:

Aquae amygdal. amar.....10.0
Codeini phosphatis..... 0.3

In coughing spells take ten drops, and then three times a day.

Patients with irritating coughs frequently complain of loss of appetite, nausea and have a coated tongue, showing that the stomach too is affected, in which condition I prefer phosphoric acid in addition to the codeine.

Of opium and chloral hydrate I almost never make any use. The official Dover's powder is rarely effective, so too the belladonna preparations appear to me to be of little and uncertain usefulness. [In giving codeine the granule form is best by all means.—ED.]

The new narcotics heroin and dionin have not persuaded me of their superiority

to those which I have used, and these new ones have various unpleasant side-effects even in cautious doses.

When accumulations of secretions in the respiratory passages are demonstrable, even then too can narcotics be often of great benefit to the patient, not only in combating the cough but also in diminishing the secretions. There can be no doubt that violent coughing spells not only keep up the inflammatory conditions existing already in the respiratory passages, but that they increase them, since the increased rapidity and the higher pressure with which the respired air strikes the mucosa of the air passages must produce, to say the least, a mechanical irritation. Give here a narcotic and the cough is quieted and with it the mechanical irritation, and the way for healing the inflammation and the morbid increase of the secretions is made favorable.

Remedies influencing the secretions in the air passages belong in the category of expectorants, and there is therefore no apology needed for counting narcotics among them. There is however need of caution in the use of narcotics. When the air passages are extensively and intensively overfilled with secretions then narcotics are decidedly to be abstained from, for by artificially blunting the impulse to cough we run the danger of suffocating the patient when the secretions increase. When there is strong cyanosis, pointing to an overloading of the blood with carbonic acid, narcotics are counter-indicated; so too when there is dyspnea no narcotics are to be given, for these in connection with the dyspnea will dangerously reduce the irritation to cough.

Expectorants in the narrower sense of the word are to be administered when rattling sounds in the chest indicate an accumulation of secretion in the air passages. Formerly a strict distinction was made between dissolving and irritant expectorants. The dissolving expectorants were those which were able to liquify tough secretions and thus facilitate their expectoration, while the irritant ones were said to stimulate the cough and thus free the air passages of the already liquified secretions. Accumulations of tough secretions in the air passages give dry rattling, whizzing sounds, while fluid secretions give moist rattling, a bubbling sound, and the instruction given formerly in accordance with this was to give dissolving expectorants in case of dry sounds and irritant ones in moist sounds.

In modern times these instructions have been thought to be negligible, mainly because in experimenting on animals with one and another group of expectorants no clear ideas could be arrived at. But allowing the experience gained at the patient's bedside to speak, then I for my part would be unwilling to throw that distinction overboard, because it has a rightful, practical value, and it is not indifferent what expectorant is given to a patient. If the question is to remove tough secretions I would give dissolving expectorants, and the old well-known *mistura solvens* still has, perhaps, good results to show (Ammonii chloridi, succi glycerrhizæ aa 5.0, aquae destillatæ 200.0; 15 Cc, or about a tablespoonful, every two hours). Iodide of potash is to be counted among the most useful loosening expectorants, especially recommendable in patients suffering from asthmatic troubles. I combine it in such cases with ipecac, so that the iodide loosens the bronchial secretion and the ipecac promotes its expectoration by exciting cough. [Instead of ipecac the alkaloidist uses emetine, a much superior preparation.—Ed.]

Of apomorphine hydrochloride and of pilocarpine hydrochloride I myself make little use, wishing to avoid every weakening influence upon the heart, but this does not say anything against their good effects in suitable cases and times. [Properly given, apomorphine shows no depressing effect and gives ideal expectorant action in "tight" coughs.—Ed.]

Among the cough exciting, irritating expectorants, ipecac is the mildest. Senega and liquor ammoniæ anisatus affect the stomach more than ipecac, and are to be avoided or used only transiently in cases of catarrh, or weakness of that organ. [Try senegin, when senega is indicated.—Ed.] Benzoic acid is to be used when there is need

of stimulation. It may be given in combination with camphor.

A combination of irritant expectorants with narcotics is not such a therapeutic monster as one might think, for under certain circumstances they serve an excellent purpose, for instance when there is a very lively cough while there is no overfilling of the air passages with secretions. In such cases I prescribe a combination of ipecac with aqua amygdalarum amarum, or with codeine phosphate, or with both at once.

The balsams and disinfectants must range for the practising physician with the expectorants, for there is a whole series of inflammatory changes in the air passages which will yield to no other but to either of these two classes of remedies. Yet they are as a rule not to be used during the acute inflammatory stages. They are well in place in chronic bronchial catarrh with abundant purulent secretions, as in bronchorrhea or in putrid processes of the respiratory passages. In both of these cases those remedies reduce the secretion, and in bronchorrhea they frequently prevent a fetid decomposition of the pus, and in fetid inflammation they frequently bring the fetid decomposition to an end. At times these happy results come about quickly, but usually the balsams have to be used for some time before improvement.

Among the balsams I prefer the oleum terebinthinæ by far, of which most patients will bear well 20 drops in milk three times a day for a long while. Of the oleum pini pumilis I have not seen as good results as from the oil of turpentine. In putrid bronchitis and pulmonary gangrene I had good results from myrtol in a great number of cases, where I gave it in capsules 0.15 (gr. 2 1-4) every two hours. Of copaiba, Peru and Tolu, I have made no use.

(*Concluded next month.*)

CARBON SULPHIDE IN PNEUMONIA.

To the long list of pneumonia remedies the Italian physician, Dr. Luigi Masciangioli, has added the remedy in the title. (*Reforma medica*, Sept. 15, 1906, No. 37, p. 1012). He has employed for some time past sulphocarbonated water as an antiseptic in affections of the intestinal tract, as taught by Dujardin-Beaumetz. He employed it in one case of an old woman, sixty-five years old, in whom pneumonia was a complication of a serious affection of the digestive apparatus, and the result was marvelous. At first the result was put to the account of intestinal disinfection, but subsequently our confrere succeeded in curing four cases of pneumonia with the same remedy.

The first case was that of a lank boy of fifteen, who on the second day after being taken with pneumonia began to expectorate pure blood in minimal quantities, but repeatedly. His temperature was in the morning 103.25°F. Dr. Masciangioli saw the patient on the third day and found bronchial respiration of the superior left lobe. There were at the same time marked gastrointestinal disturbances. A good dose of calomel was given him and the next day he began to take the sulphocarbonated water, the preparation of which will be given further on. On the morning of the fourth day the temperature fell to 99.5° F, and rose transiently in the evening to 100.94° F.

A few days after, a brother of the same boy, a child eleven years old, of vigorous constitution, was also taken with pneumonia. His evening temperature the first day was 104°F. and that of next morning 100.8°F. and there was bronchial respiration on the level of the left scapular region. Calomel was given. On the morning of the third day the temperature being 103.6°F., the sulphocarbonated water was commenced. In the evening the temperature was 104.18°F., but on the morning of the fourth day the thermometer indicated but 99.14°F. and there was sedation of all the symptoms. On the evening of the same day there was a slight rise to 100.76°F. and after that the temperature did not vary from 97.16°F.

The next case was that of a girl of twelve years of age whom Dr. M. found on the first day of an attack with pneumonia and phenomena of excitement and a temperature of 105.8°F. The next day in the morning

it was 103.8°F. Calomel was given. In the evening the temperature was 105.3°F. On the third day the sulphocarbonated water began to be administered, the morning temperature being 104°F. and the evening 105°F. The general symptoms which were very intense up to this time receded during the night, and in the morning, and on the morning of the fourth day the thermometer indicated 97.14°F.

The last case in this series refers to a large infant of twenty months, who on the first day of a pneumonic attack had a temperature of 102.9°F., bronchial respiration on the left side extending over all that part of the thorax. Calomel was given and in the evening the temperature rose to 103.8°F. After midnight, considering the agitated condition of the infant, the sulphocarbonated water was given it. Then beginning the next morning the temperature went down to 98.8°F. and rose in the evening to 101°F. and the next morning it was 98.4°F. then in the evening 97.3°F.

How shall we interpret these facts? Have we here the forms of abortive pneumonia described by Steiner and more recently by Bechtoldt? This may be answered with Dr. Masciangioli in the negative, seeing the clearness of the stethoscopic signs and their evolution. Then too the fall of the fever (which in all the cases followed promptly the administration of the sulphocarbonated water) was produced at different stages in the course of the disease, whether the treatment was instituted more or less near its first appearance. This fact of the fall of the fever is worthy of notice, especially in the first two cases related above, for the father died of pneumonia a few days before and in all probability all the three patients, though differing much in vigor, became infected by germs of equal virulence.

As to the manner in which the sulphuret of carbon (carbon disulphide) acts here specifically it is difficult to say. Besides its antiputrid action which was studied out by Dujardin-Beaumetz, the works of Petrescu have shown that carbon disulphide exercises "a general medical antisepsis at distance over both histologic elements and over pathogenic germs, or their toxins, analogically to local surgical antisepsis." It is well known that this substance is absorbed by the blood, is easily discovered in the urine, and is eliminated specially by the respiratory passages.

It is, therefore, probable that in the case before us the carbon disulphide is absorbed by the blood and acts on the pneumonic germ, paralyzing its vitality, neutralizing its toxins and checking the disease.

The physician who would try this treatment is to be reminded that he must prescribe the pure carbon disulphide, the odor of which is nearly that of chloroform when aspirated from a bottle just opened. One liter of water will dissolve of this two grams (grs. 30) or four and fifty-two hundred grams (grs. 69.62) after agitating. The carbon disulphide water thus obtained must be kept from light and air.

Dujardin-Beaumetz's formula follows:

Carbon disulphide....gms.	10.00
Essence of mint.....gtt.	6
Distilled water.....gms.	500.00

To be put in a bottle of 700 grams capacity. After shaking it is left to settle. The dose of this is from five to twelve tablespoonfuls a day, being careful to give only the supernatant water and never that from the lower part of the bottle, and being careful also not to stir the vehicle (*le recipient*). We must also replace the amount taken out with as much water. Every spoonful should be diluted in red wine, or milk.—(A. Gaulliard L'Hardy in *Gazette des Hopitaux*).

—:o:—

This remarkable paper seems to emphasize what we have so often said of calcium sulphide. There is little doubt that in all these loosely combined sulphur combinations we have the most effective internal antiseptics now at our disposal. The remarkable efficiency of calcium sulphide in acute infections such as gonorrheal rheumatism, yellow fever, small-pox, etc.. suggests a trial in pneumonia also, especially in cases of mixed infections and as an adjuvant to vascular sedation, elimination, etc., which are always essential.—Ed.

MISCELLANEOUS ARTICLES

STATUS LYMPHATICUS

THE case now to be narrated must be admitted to be a rare one, but none the less will it be found to carry a quite practical lesson and it is well adapted to arouse reflection over the query, What pathological process can cause death in a seemingly healthy individual in but twelve hours' time?

Georgia M., twenty years of age, born in the United States, of American parentage, is a cripple from an old paraplegia and lives in a chair. She is mentally imbecile, with rather slow and labored speech. Her skin and complexion are very clear and fair; the hair auburn, rather coarse and wavy; eyes hazel; features comely; an attractive-looking girl.

She began to walk at the age of one year. Later in infancy she had a fall to which the mother imputes the palsy. The mental defect was noticed when the child was eight years old. Twelve years later she entered the California Home for the Care and Training of Feeble-Minded Children. Here it was observed that she was very subject to fits of petulance and to sometimes throwing away her food or spitting it out. Her physical health remained good until March 21, 1906, when she complained of some intestinal pain and there was a slight rise in temperature. A laxative removed all the symptoms, including the fever, and she remained well to all appearance for the next two days. She staid in bed however, on the 23rd, because of the bad weather then prevailing. At 2 p. m. her temperature was normal being 99.2°F. per rectum. At 4:15 when offered food, she became vexed and when urged to take it threw it against the wall. At 5 p. m. her temperature was measured and found to be 106.4°F. At 6:30 it was 106.8° and at midnight 103.4°. Meantime she had quieted and slept well.

At 1:30 a. m. she awoke and the night nurse saw at once that something was wrong. There was labored breathing and no pulse at the wrist. The resident physician and the interne were both summoned and remained with her until after four o'clock. The remedial measures instituted were external heat, hypodermics of strychnine, 1-30 grain, and repeated doses of nitroglycerin (gr. 1-125 and 1-100); also inhalation of aromatic spirit of ammonia; and dry friction. But it was clear that absorption was suspended. Respiration was 42 per minute, but full and free; it was almost impossible to hear any pulsations of the heart by the stethoscope. The feet and legs began to grow cold while respiration was laborious. Suddenly it ceased at 5:20. The body was noticed to keep quite warm for several hours.

What had happened between five in the evening and five in the morning? To determine this an autopsy was held (29½ hours after death). The body is well nourished, it shows some hypostatic markings all over the back and loins. The mark of a small burn is present over the lower end of the sternum. No rigor mortis present. Both lungs were found to be normal with some hypostatic congestion. The pericardium was filled with clear, amber-colored fluid. The heart was large in size for a girl of her age. The right auricle was dilated. The valves were sound. A fibrinous clot was found in the pulmonary artery. No signs of aneurism were found in the aorta.

The liver was of normal size and color as also was the stomach. The intestines

were normal. The ovaries were shrunken and each one contained two small cysts. The broad ligaments appeared congested. The spleen was quite large, of fully maximum normal size, and its Malpighian corpuscles stood out with vivid distinctness.

On removing the calvarium, partial adhesions, of old standing, were found between the dura and pia along the longitudinal fissure. The cerebral vessels were quite full of blood. The upper anterior portion of the cerebellum on the left side was somewhat softened. In the fourth ventricle a very moderate quantity of fluid was found; possibly it would have been greater if the cranial cavity had been the one first opened.

Up to this point the search for the cause of death had been thoroughly unsatisfactory and we were on the point of closing the incision when the thought came to me to search the neck. Very promptly a thymus gland was found, the size of a small walnut, and studded with black spots. Now, at last, the clew was gained and a brief reading enabled me to make the diagnosis of Status lymphaticus. The literature on this subject is quite recent in origin and most of the research therein has been carried out in Vienna. While most of the papers on this subject are therefore in German there are three in English, the earliest of which is by Ewing under the title: "The Lymphathic Constitution and its Relations to Some Forms of Sudden Death," contained in the *New York Medical Journal* for July 10, 1901. To this article and to the exhaustive essay by Dr. Ohlmacher in the "Reference Handbook of the Medical Sciences" (Vol. VII of the revised edition), the inquiring reader is referred for full information. I shall record here only a brief abstract of what is known about this noteworthy condition and mainly such points as are germane to the case here narrated, or to other forms of sudden death.

Status lymphaticus, then, is a constitutional disorder characterized by a persistence or hyperplasia of the thymus gland and by general lymphadenoid hyperplasia, frequently associated with cardiac and arterial hypoplasia and the osseous evidences of rickets. Its most prominent pathological feature is a persistent or enlarged thymus; next, a hypertrophic state of the lymphadenoid tissue; the lymph follicles are usually increased both in size and number. The spleen is, as a rule, moderately enlarged, with a striking prominence of the Malpighian bodies. Such was notably the case in the subject of this paper. A close association between Status lymphaticus and rachitis has been abundantly established, particularly among lymphatic infants.

In certain cases of status lymphaticus, a pronounced hypoplasia of the arteries, and sometimes likewise of the heart exists; the aorta is generally smaller than normal, though the heart is rarely so. At times this state obtains throughout the general system of arteries. Rupture of such thin-walled arteries has been reported.

A thick skin and increased deposit of fat have frequently been noted. Pallor, or pastiness of the skin often exists.

Hypertrophy of the thyroid is a common accompaniment.

An infantile uterus (or male genitals) with undeveloped tubes, ovaries and mammary glands are occasionally found.

The symptomatology of the lymphatic state is, very briefly, as follows: thymic asthma, or laryngismus stridulus, and thymic sudden death in infants; infantile convulsions particularly associated with teething; infantile tetany; epilepsy; death under anesthesia or from trivial surgical or medical procedures: for example, after removing adenoids, or the injection of curative sera; sudden death of adults, especially the young and strong; death in the water by so-called cramps or drowning; lowered resistance to infection; and spasmodic, croupy cough. It may seem paradoxical to class sudden death as a symptom; but it is the cardinal symptom in some of these cases, as witness the history herein narrated.

I hope that the importance of the study of a condition which may cause sudden death when least looked for—as after an antitoxin injection (e.g., the Langerhans case), or the removal of pharyngeal adenoids, or where a young individual suddenly sinks

under the water and rises no more—has now been made manifest; and that the history here given, besides recording a curious case, conveys an admonition and a practical lesson to every one willing to learn.

As to the treatment, but two words: It consists, at present, mainly in preventing rickets. Therapeutically, extracts of the thymus gland, of the thyroid and of the adrenal have been administered, but no lasting beneficial results have been recorded.

Finally, the obvious lesson is brought home that in cases of obscure nature, and especially of sudden death, an autopsy should be held and this should note particularly the state of the spleen, the size of the aorta (if too narrow), and whether a persistent or enlarged thymus be present.

EDWARD GRAY.

Eldridge, Calif.

—:o:—

There is indeed an important lesson to be learned from this case. There can be no question that Dr. Gray is absolutely right in the statement that many of the obscure and unexplained deaths, especially those occurring during anesthesia, after the injection of antitoxin, and as a result of or rather following trivial accidents, are really due to this peculiar condition—Status lymphaticus. The reason for this we do not know, but the fact remains. And it is the doctor's duty to know these facts and to be prepared to cope with them.—ED.

CALCIUM SULPHIDE AND NUCLEIN IN ENLARGED TONSILS.

I have received several letters of inquiry concerning my short article in CLINICAL MEDICINE, in which I advised the use of calcium sulphide and nuclein in enlarged tonsils. I will answer to all these gentlemen through the columns of the journal. No mistake was made when I said calcium sulphide. Furthermore, this combination has never failed in my hands to relieve any of the ordinary enlargements of the tonsils, either acute or chronic, when this enlargement was due to an infectious process, as such process is ordinarily understood.

Of course this treatment must be supplemented by cleaning up the intestinal canal and the application of the well-known principle of intestinal antisepsis. Sometimes it takes months to bring about a complete cure, but generally benefit will be noticed after the first few day's treatment.

W. P. BARRON.

Rusk, Tex.

TWO PNEUMONIAS CURABLE.

I am a regular practician of medicine and with the advent of the new National Dispensatory and the new text-books and those revised up to date among them, I hoped to find a curative remedy for the pneumonias, but not so. I therefore have decided that the "regular" profession of medicine has no real curative remedy for the pneumonias. No doubt many cases were saved by cardiac stimulants in the race that the patient may outlive the disease, but there is not a remedy that I know of nor is any hope of it offered in all those big books.

Somebody is wrong and in error and I don't care who. I want the truth and the best remedy. In the last two years I have treated and cured more than thirty cases of bronchopneumonia and every case practically out of danger in seventy-two hours. I have not lost a case yet. Someone will and has said it can't be done. It has been done and I can do it again with the alkaloids, aconitine, digitalin, strychnine, pushing calcidin to effect and holding effect day and night. I give digitalin all the time and in less than seventy-two hours I have the case under control. Calx iodata is no good in the acute stage, but here is the place for aconitine and digitalin. In case the intestinal canal is "clean" these in a few hours render the case subacute, then calcidin does the rest.

As a rule I use no expectorants, as I have seen infants drowned in their own phlegm by giving too much stimulating expectorants.

If calx iodata stimulates absorption, which it does, why stimulate secretion into the bronchioles? So with the alkaloidal granules and calcidin, bronchopneumonia is easily and quickly relieved and cured.

Now as to croupous or lobar pneumonia. I have been taught that it is a self-limited disease and it seems the "regular" thinks so yet.

Very recently I have aborted four cases of lobar pneumonia by the alkaloidal plan of treatment. It looks as if there had been too much time spent in examining and thinking about the pneumococcus at the expense of the patient's life and his condition. Just a few days ago I was called to a young man whose pulse was 130, temperature 105°F., respiration 28, delirium, pinched facies, bloody expectoration, pain in right chest, fine crepitant rales. Treatment: Calomel, saline, aconitine, digitalin, strychnine. Slowly the fever and pain lowered to a good perspiration, and next day the case was under control and he needed food more than medicine.

I. N. Mayers.

Speedwell, Tenn.

FOURTEEN CASES OF PNEUMONIA—ONE DEATH.

I could not now think of treating pneumonia without the alkaloids. In the last three years I have treated fourteen cases of pneumonia, almost all ages, from infants up to eighty-four years; with one death. Was it the old one? Not any. It was a babe eleven months old, neglected by the mother, who was, I can say, a dirty slouch, not caring for the child.

J. C. Dreher.

Kalamazoo, Mich.

PNEUMONIA—TWO CASES.

The fact that the "authorities" in medicine and their numerous followers continue to lose from 30 to 60 per cent of their pneumonia cases; and with medieval conservatism refuse to recognize any new and improved method of treatment, preferring to believe that the disease must run its course, is good reason why those who know they can abort and cure this disease should continue to call the attention of the profession to the facts.

Here are two cases treated by the alkaloidal method:

1. Lena Z., age 9, severe chill during night, followed by rapid rise of fever in the forenoon. I was called at noon. Found pulse 140 with high tension; temperature 104.5°. Dry cough with some slight expectoration of blood. Right cheek flushed. Vesicular rales and marked dulness distinctly localized in the middle lobe of right lung. I gave aconitine with a little glonoin in solution, repeated every half hour. Calomel and podophyllin to "clean out" and a sponge bath with friction to open the pores of the skin. Digitalin with the aconitine for effect on the kidneys as well as to support the heart. Result: A complete subsidence of all symptoms within twenty-four hours. The patient was allowed up in 36 hours and coasting on the hill on the fourth day. There was no relapse or after effect.

2. Russell F., 11 months old. I was called at 1 o'clock a. m. and found the child gasping for breath. The onset had been sudden, with a chill. Pulse, 160 temperature 104.2° in the axilla. The entire left lung was badly congested. I at once gave a granule each of aconitine and digitalin dissolved in hot water, ordered the chest to be enveloped in a hot onion poultice, and gave a full dose of castor oil to be given in half an hour. I left aconitine to be given in solution (by Shaller's rule) with digitalin, glonoin and atropine, dose to be taken every twenty minutes till the fever should fall. I 'phoned at 7 a. m. Patient much better. I called at 10 a. m., and found the patient laughing and playing, smelling strongly of onions, with temperature 99° F. There was complete recovery in twenty-four hours. Care was taken in diagnosing both cases.

Such cases as these are common with those who use the alkaloids and use them to effect. But the "wise ones" can't see how it may be done. They think there

must be a mistake in the diagnosis because the disease did not run a full course. But pneumonia can be cured. It can be aborted. Let us do it and stop the funeral procession.

A. E. Lemon.

Sault Ste. Marie, Mich.

BALSAM OF PERU. HERNIA. PNEUMONIA.

In the October number of The American Journal of Clinical Medicine, page 1322, I notice balsam of Peru for wounds. Forty-one years ago last February I had my first experience with balsam of Peru. I was called to see a lady seventy-three years old suffering from strangulated femoral hernia. I tried to reduce it, but failed. I called in an old M. D. when for about four hours we tried to reduce but to no avail, and an operation was decided upon. On exposing the strangulated bowel the old doctor shook his head and said, "Ah, too late, looks like gangrene." The stricture was released and doctor suggested carbolic acid dressing, and whispered to me: "She will cross the R. J." So she did, but not until nearly nine years after the operation. She made a rapid recovery and enjoyed good health up to some ten days before death, when she was taken with pneumonia.

But now for the treatment after operation. I practised in a small country village, no drugstore within ten miles, I had no carbolic acid, and as I had been treating all cuts and wounds very successfully with balsam of Peru, I made a solution of balsam of Peru in rye whisky, saturated linen clothes and applied it; ordered it renewed every two hours. Imagine the old doctor's surprise when three weeks later I told him the old lady was quite well.

Ever since then I have used balsam of Peru as an antiseptic and healing dressing in all wounds, and want nothing better. It will be found to perfectly disguise the odor of iodoform.

I have succeeded in aborting a typical case of pneumonia with the alkaloids: Boy, four years old, had been ill three days before I was called; found bowels constipated, tongue a dirty coat. Pulse 160, tem. 104° 1-2. Res. 46. Constant cough, great dyspnea and pain in right lung. After cleaning out, and somewhat frequent doses of aconitine, veratrine and digitalin, with small doses of codeine and calcidin for the cough, he is now, after five days' treatment, quite well, except a slight cough.

J. C. Dreher.

Kalamazoo, Mich.

—:o:—

The balsam of Peru is undoubtedly a good antiseptic application in some wounds, but the modern, aseptic method has given us a safer, surer and altogether better way.

The number of cases of aborted pneumonia is accumulating. Just note the reports in this issue of Clinical Medicine; and these are but a fraction! No man can fairly call these in question who has not tried "the alkaloidal way." And those who "try" cease to doubt.—Ed.

PROVING OUR REMEDIES.

In looking through your journal whose platform is, "The smallest possible quantity of the best obtainable means to produce a desired therapeutic result," with its natural corollary of "the single remedy" where possible, I have been impressed with the practicable increase of value in your contribution to exact science, if the actions of your alkaloids were ranged under the two great laws governing drug action: The antipathic and the homeopathic; *contraria, similia.*

For example, your therapeutic indications for strychnine are clearly antipathic —in asthenic conditions it is given as a stimulant; the conditions for which you commend rhus tox, bryonin, dioscorein are those to which these drugs are clearly homeopathic, as evidenced in the drug pathogeneses upon the healthy—easily accessible to your investigation.

It would be an advance in science if each one of the principles you have so carefully isolated were taken up, *seriatim,*

and their action analyzed with regard to the known laws of drug action.

It would be a yet greater advance if your house would institute physiologic provings upon the healthy, so that an alkaloidal materia medica pura might be established.

P. W. SHEDD.

New York City.

—:o:—

I have read your letter with great interest, and I agree with you that it would be an advantage if the remedial action of these drugs could be assigned to these laws. We have limited ourselves as closely as we could to recording such facts as come under our own observation, or are reported from sources we consider reliable. Naturally, most of these reports come from the medical school which contains the vast majority of practicians, but we have never discriminated between them and others; nor have we stopped to ask whether the drug action is antipathic or homeopathic. Our only question has been—whether the report is true.

When you speak of proving by definite remedies, you touch a matter which is very close to our hearts. But, Doctor, your argument is based on a wrong assumption, in that you credit us with the possession of an organization capable of doing such work. This journal with its staff of twenty physicians and fifty-thousand readers, is simply a great clearing-house for their work. Necessarily, and much against our will, much of this work is done by the staff. We ought not to be called upon to do any of it, but simply to classify and record the reports furnished us by our readers. This gigantic proving is an absolute necessity to the medical profession. It should extend to both the laws—antipathic and homeopathic. It is necessitated not only by the development of a line of uniformly-acting remedies, but by the great development which the science of physiology has received in recent years, especially from the development of our knowledge of the internal secretions. The time has gone by when a drug is to be judged solely from its effect on temperature, respiration and circulation.

But this work is so gigantic that only the entire profession can do it. We would like to see our readers divide up the alkaloidal materia medica, each one selecting a single drug which he will investigate. There are about two-hundred of these which can be furnished in chemical purity, and if two-hundred and fifty physicians take up the study of each one of these drugs, our fifty-thousand readers would cover the field. What an increase of knowledge would result, what perfection of technic could be obtained, if each active principle should receive a year's study from two-hundred and fifty active practicians in all parts of the country, under all conditions of practice! Surely we would have from this results that would be durable, where individual errors would be extinguished by the multiplicity of reports, where every fact elicited by one man would be at once subjected to the scrutiny of two-hundred-and-forty-nine others.—ED.

THE "GREAT OMENTUM" AGAIN.

How Dr. Fletcher's merciless criticism of my poor little diagnosis (see October CLINICAL MEDICINE, page 1353) does carry me back to the memorable winter of 1875-76, when a certain gentleman, age about twenty-one, with a pair of assiduously cultivated mutton-chop whiskers, used to sit well-down toward the front and gaze with admiring air at Prof. B., a tall, fine-looking man, also armed with whiskers *a la* sideburn, though, alas! his were a beautiful blond and had just curl enough to be lovely. Mine were distinctly auburn and, so to say, scrubby.

I didn't take it all out in admiration. I *listened* to Prof. B. and he was well worth listening to. Same with Dr. Fletcher's paper. I don't carry the guns to cope with a man like that. Look at some of my stuff and then look at his. Well, you know the proverbial thirty cents. I'll just say *mea culpa* (that's Latin) and let it go at that. I just want to enter a feeble

little protest (as one crying in the wilderness) against that one word in his article —"fatal." Nothing "fatal" happened from first to last. As impossible as it may appear the lady survived my diagnosis —more than that, she is completely well from her dropsy.

She did not recover under my care. I sincerely wish I could claim the honor. However, the gentleman in whose service she did recover confirmed my diagnosis, so you see I've got a bit of backing after all. In all seriousness I wish to publicly tender my thanks to Dr. Fletcher for the kindly praise of the few meager points I did make.

L. Thompson Clason.

Urbana, Ohio, R. F. D., No. 7.

WHEN SHOCKED BY ELECTRICITY.

The following is clipped from the *Chicago News*. It gives some interesting and useful information concerning electrical shocks.

In addition to artificial respiration the use of atropine, hypodermically, as a respiratory stimulant will suggest itself, with glonoin and strychnine as circulatory stimulants. The clipping follows:

"How many in this twentieth century are murdered through ignorance? I allude to people shocked by electricity. When a man is executed he receives a shock of over 2,000 volts. And under the best conditions I will assert that if the condemned should receive a pardon after receiving this charge of 2,000 volts in ten minutes' time he might be alive and enjoying the benefit of that pardon.

"Trolley wires which kill so many people carry only 500 volts—a force just sufficient to give a very interesting vaudeville exhibition, showing how a person is revived after being shocked.

"Every fireman and policeman in the city ought to know what to do when a person is shocked by electricity. When a man is under the influence of ether he breathes naturally, but when 'under the influence' of electricity he does not breathe at all. The first thing to do after a man has been shocked is to force him to breathe. Take off the coat, place it under the shoulders. Open the clothes around the throat and chest. Draw the arms over the head and out to full length. This expands the chest and permits the air to enter. Bring the arms back, doubled at elbows, and bring them forcibly against the chest, expelling the air. Keep this up for one hour if the person is not revived sooner, and breathes as fast as a person should breathe. While doing this send some one for a doctor.

"The most critical time is immediately after the person has been shocked. Lose no time getting him to breathing. The burns and so forth can be treated afterward.

"A young man at South Bend received a shock of 2,500 volts. He had hardly fallen to the floor before he was grabbed by an electrician who tried to revive him. In five minutes' time he was all right. About twenty-four hours later he felt pain from the shock. He suffered for about a week and was then as well as ever.

"A man who revives a person shocked by electricity is as much a hero as one who saves another from a burning building."

Chicago. Ernest Filer.

ARTERIOSCLEROSIS AND INTERSTITIAL NEPHRITIS.

I was called, May 28, to see Mr. W. C., aged 55. Mr. C. had been sick for five days and was given twenty-four hours to live by the attending physicians and two consulting physicians. There was a diagnosis of interstitial nephritis, third stage, with uremic coma.

Treatment so far as I was able to ascertain had been sweating with hot pack, liberal catharsis, and subcutaneous injection of normal saline solution every five hours.

Status præsens.—Cheyne-Stokes respiration, arteriosclerosis in a very marked degree; blood vessels on forehead and temples standing out as large as slate pencils, also over abdomen. Pulse 100, full

and bounding and non-compressible. Temperature 101 2-5°F. Patient semicomatose and delirious, left heart dilated. First sound much accentuated. Area of liver dulness much contracted. Skin, except face and forehead, very dry.

It certainly looked like interstitial nephritis, but I had made a careful examination of Mr. C. some time previous and was satisfied that I did not have a case of interstitial nephritis to deal with. A specimen of urine was obtained. Analysis showed reaction acid; albumin 1 1-2 per cent estimated; specific gravity 1.025; no casts, many crystals of urea, some amorphous urates.

I concluded there was a chance for help, if I could overcome the excessive pressure produced by the injection of the salt solution and restore a fairly normal liver action; that the case was one of arteriosclerosis, causing a so-called uremia, but which is not truly uremia, rather due to an unisolated poison, produced by imperfect metabolism in the liver; that the albumin present was a pressure albumin and not due to interstitial nephritis.

Treatment.—I gave the following: Nitroglycerin, gr. 1-250; aconitine amorph., gr. 1-134; hyoscine, gr. 1-500. Sig. One of each every hour. Calomel, gr. 10, soda bicarbonate gr. 20, followed in two hours by magnesium sulphate one-half ounce. This was to be given every second evening. Morphine sulphate, gr. 1-8 every three hours. Dry hot air bath once daily, followed by a thorough rub with the coarse towel. Every morning a high rectal enema of salt solution, temperature 100° F., not allowed to remain. If not expelled immediately was allowed to return through rectal tube. Feeding was dropped for nearly three days. Patient was then given whey and junket (Fairchild's essence of pepsin) every three hours.

The second day 1-67 grain pilocarpine was given per os every ten minutes until 1-8 grain had been administered, to ascertain if it could be given safely; no symptoms of edema manifesting itself 1-8 grain was given hyperdermically; saliva was secreted freely, general sweating was profuse. This was repeated on the fourth and sixth days, after which time the action of the skin being quite normal, it was discontinued.

Potassium acetate, grs. 20; potassium iodide, grs. 8; syrup sarsaparilla comp., dr. 1, was given continuously until the fifteenth day. The temperature fell to 99° F. after the fifth day; pulse 85 to 92. Aconitine was discontinued. Blood pressure fell and arterial tension became fairly normal after the sixth day, after which time nitroglycerin was discontinued except as occasional exacerbations required its use.

After the sixth day the patient grew more normal mentally, could answer questions fairly well and began to know friends who came in to see him. Cheyne-Stokes respiration, except for occasional lapses at night until the fifteenth day, disappeared after the sixth day.

Calomel and soda and magnesium sulphate were discontinued after the twelfth day and five ounces of abilena water was given every morning for five days, then Kinkle's pills were given at night.

Freshly prepared nitromuriatic acid U. S. P. in 2-minim doses, together with essence of pepsin (Fairchild), was given after each feeding—after the twelfth day, and was continued until June 21.

After the fifteenth day the patient became normal mentally. Involuntary evacuations of bladder and rectum ceased. Pulse 78-85 and fell to 60-70 after twentieth day. Over-distention of blood vessels disappeared and at present time while there is marked arteriosclerosis still, the blood vessels are reasonably compressible and the tension is not high. Dilation of left heart has nearly disappeared.

From the fifteenth to the twenty-first day the patient was given Wampole's pill, nephritic, three times daily with six ounces of water. This was given as the patient could not be persuaded to take a sufficient quantity of fluid and the quantity of fluid fell to 800 Cc. but increased promptly to 1500 Cc. and 2000 Cc. after the admin-

istration of the pill nephritic. Specific gravity of urine remained at 1022 to 1025. Albumin grew constantly less and disappeared after the tenth day. No hyaline casts were present, in fact no casts at all, except an occasional false cast, at any time. Until after the fifteenth day microscopical examination showed uric and crystals and some days enormous numbers of crystals of urea were found after centrifuge. I regret that I am not able to give quantitative test for urea and uric acid during the first fifteen days; but it was impossible to obtain the twenty-four hours' urine until after that date. No restriction on albuminous diet was made after the twentieth day.

I saw the patient July 5 in my office, He had splendid appetite, no pain, normal movement of bowels every day, color good, general diet.

Points in this case for discussion:

Symptoms.—Uremia, dilated left heart, coma, Cheyne-Stokes respiration, albumin in the urine, dry skin made basis for diagnosis of interstitial nephritis. But, specific gravity of urine 1025, reaction acid, color high, no casts even after using centrifuge, spoiled the picture. Parenchymatous nephritis had to be excluded because no dropsy was present, no casts or blood. At the time when the case came under my observation, the symptoms above given—the terribly exaggerated arterial pressure with the sclerotic condition of blood vessels in kidneys and liver, with enormous deposits of urates and urea in the urine made a diagnosis of arteriosclerosis of kidney and liver, not interstitial nephritis, imperative. The peculiarity of the case is that there has been no edema at any time, a condition one would expect to find present.

Failing to recognize that specific gravity 1025, acid reaction, high color, no casts, 1 1-2 per cent albumin, quantity at least 1200 Cc. can't be interpreted interstitial nephritis, third stage, even if an acute nephritis had supervened and arteriosclerosis, coma, Cheyne-Stokes respiration were present, lead to what came nearly being a very grave error.

Dr. Osler in the "Renal Diseases," p. 779 says: "The relation between the arterial and kidney lesions has been much discussed, some regarding the arterial degeneration as secondary, others as primary. There are certainly two groups of cases, one in which the arteriosclerosis is the first change and the other in which it appears to be secondary to a primary affection of the kidneys. The former occurs, I believe, with much greater frequency than has been supposed."

I hope to see a more careful investigation of these conditions. We are too prone to jump to the conclusion, Bright's disease, when we see cases of arteriosclerotic conditions—dilated left heart and albumin in the urine, especially if Cheyne-Stokes respiration and delirium and coma are present, when really a good number of these cases depend for their condition very largely on imperfect liver action and improper balance of portal and renal circulation, due to arteriosclerosis—but by no means all cases of arteriosclerosis have interstitial nephritis. Involvement of the blood vessel walls does not necessitate involvement of interstitial tissue either in the liver or kidney; and while the use of intercellular injection of saline solution might be considered by some physicians good treatment in true uremia accompanying interstitial nephritis, it is certainly very wrong treatment, as was proven in this case reported, in true arteriosclerosis of kidney and liver.

Arteriosclerosis may produce very serious symptoms, both in kidney and liver excretion and secretion, and still there may be no true interstitial degeneration present. A failure to analyze the symptoms and urinary findings, both chemical and microscopical, will lead to unfortunate conclusions not only in diagnosis but in prognosis and treatment in these cases.

Raising of blood pressure might not do serious injury in certain selected cases of interstitial nephritis but would certainly be fatal in true arteriosclerosis either of liver or kidney or both, and even in interstitial nephritis Dr. Osler's expression that a "happy medium must be the result we

must endeavor to obtain", is the sum and substance of the treatment.

J. S. Dean.

Wheatland, Iowa.

CORYZA, ASTHMA, AND URTICARIA IN HAY FEVER.

A interesting feature of a certain proportion of hay fever cases is the occasional association of coryza, asthma and urticaria. The relation of asthma to skin affections, says John Noland Mackenzie in Reference Handbook Medical Sciences, vol. v., p. 238, was familiar long before the days of Trousseau. "Thus the illustrious Hoffman mentions, as a fact of common experience, that asthma sometimes follows suppression of a cutaneous rash; and before him Baglivi had recommended, in such an event, that the patient should sleep with one having scabies, that, catching it, he might be relieved of his asthma." Mackenzie proceeds to explain the association of urticaria with coryza and asthma by regarding the skin as essentially "a part of the respiratory tract—as the external organs of respiration." This conclusion is entirely justified by the result of treatment, for all the symptoms disappear rapidly with free expectoration and elimination, urinary and fecal, together with sedative and tonic treatment of the nervous system.

My case was a man aged 65 years, well preserved and usual good health. Had hay fever first ten years ago. First symptom of same this year about 10th of August; urticaria about one week later; eruption which some neighbors feared might be smallpox; some vesicles did contain pus; no itching but most intensely uncomfortable "burning" sensation which at its worst seemed to set the patient wheezing with asthma. Patient had been treated a week or more by another physician with no relief whatever when I first saw him. I was much struck by the apparent passive congestion, waterlogged almost to the extent commonly called "dropsy." Possibly the large quantity of hay fever "preventive" containing arsenic which he had taken was here responsible to some extent.

Of course the first thing was to "clean out" and for this purpose probably nothing meets the indication better than calcalith and podophyllin. Certainly no drug causes more rapid elimination by the kidneys than colchicine associated with an alkali, easily proven by a few tests with urinometer. Any cocaine, morphine or other narcotic aggravates the disease and positively damages the patient. Mackenzie recommends zinc phosphide gr. 1-16, quinine sulphate, gr. 2, ext. nux vom. gr. 1-4, taken before meals, but I found the sumbul comp. of Goodell to have a most happy effect following the first dose and maintained by prolonged administration afterward.

It would seem that Mackenzie is eminently correct in treating this affection as any other chronic disease of the nervous system and I think I can do no better in conclusion than to repeat one of his paragraphs: "The great mistake which is universally made, it seems to me, is the suspension of treatment upon the termination of the attack, and I therefore wish to emphasize the importance and necessity of continuous treatment throughout the interregnum of fancied immunity from the disease."

Elmer F. Gould.

Carthage, Mo.

CROUP OR DIPHTHERIA?

Female, age 4, was called Oct. 27, 1906. Found the patient with pulse, respiration and temperature normal, tonsils, fauces and vault of pharynx slightly inflamed, small white patches on tonsils, and obtained the following history: Six days previous she began complaining of pain in the throat on deglutition, slight cough with possible fever. Symptoms subsided promptly after application of household remedies. On the morning of my first visit the mother noticed the above-mentioned white patches on the tonsils.

Treatment.—Calomel, gr. 1-4 every one and one-half hours for five doses, followed by castor oil and sulphocarbolates, grs. 2 1-2 every two hours. Locally, swabbed throat with a solution containing equal

parts of tr. iodine, glycerin and ichthyol, and a little carbolic acid—to be repeated thrice daily, and gave antiseptic wash for mouth. Left for home, distance of nine miles, after giving instructions to be called in case symptoms did not disappear or others developed. Oct. 29, 5 p. m., I was called by 'phone, and I being away from home, the patient was seen by a colleague. Condition found as I could ascertain: Temperature 103 4-5°F., pulse and respiration in proportion. Treatment ordered similar to first that I had instituted.

I saw patient at 10 a. m., Oct. 30. Temperature 99°F., pulse 100, and weak, respiration 25 and labored. There was hoarse cough, breathing through mouth, extensive membrane covering tonsils, uvula, vault of pharynx and extending into the larynx. On raising an edge of the membrane there was a bleeding surface. Cervical glands swollen and tender.

Treatment.—Tr. ferri chloridi, gtt. 15, every three hours. Calx iodata gr. 1-3 every hour. Strychnine, gr. 1-134 every three hours. Locally, cleansing throat and nasal passages with 3 per cent carbolic sol. and 30 per cent alcohol solution. At 11:30 a. m. administered 3,500 units antitoxin; 2 p. m., conditions unchanged, only breathing a little more easily; 9 p. m. temperature 98°F., respiration 36, pulse 110 and weaker, extremities cold; 10:30 p. m. temperature 98°F., respiration 38, pulse 124, patient gradually grew weaker; 1:30 a. m., Oct. 31, died.

There is nothing unique in this case that I have tried to outline in simple way, nor the treatment thereof. I would like to have your criticism of my management and a diagnosis.

Will say farther there was no other cases in vicinity known to be diphtheria. The patient was isolated and 500 units administered to the brother, the only other child of family.

——, Texas. R. B. T.

—:o:—

The case you report was undoubtedly one of diphtheria though in the beginning it might easily have been mistaken for one of follicular tonsillitis. Then was the time for the exhibition of serum, and a culture of swabbing from the throat should have been made, if possible, to settle the diagnosis. In all these cases test for Loeffler's bacillus at the first visit.

If serum is used it must be used *early* to secure best results. We should have cleansed throat, mouth, and nose, with H_2O_2 (pure), swabbed with Loeffler's solution and ordered frequent spraying with the peroxide. Calx iodata and calcium sulphide with nuclein in full doses from the first—at same time "*cleaning out and keeping clean*" the entire intestinal tract. Patient should have been subjected to fumes of formaldehyde or eucalyptolized steam.

Your local application was good but it is hard to get people to use it often enough and thoroughly enough. Peroxide of hydrogen can always be given. Later cactin, strychnine and echinacea would have given you results—the low temperature showed waning of vital powers which means stimulation. The membrane made it evident that the local infection had not been in any way controlled and it should have been destroyed with alternate sprays of bovinine and H_2O_2; papain in glycerin also proves efficacious in dissolving membrane—always have some with you. Make it up *fresh*.

This is one of the many cases where an early recognition of disease and prompt and thorough treatment might have saved life. It is a good rule to treat all suspicious cases as diphtheria till report of bacteriologist proves them not to be from the specific bacillus.—Ed.

"FLOURENDOFENDUNG."

I was recently called to a case of a boy of eleven who had what I considered a case of autotoxemia of intestinal origin. The case progressed fairly well under intestinal antiseptics and affiliated remedies until the father 'phoned that "M— is better in every way. Don't believe you need to come over today. Will let you know in the morning."

In the morning came the message: "Come quick, M. is worse. Can't talk." I found the boy in a semi-comatose condi-

tion. There was no response to any question or order, the only evidence of life being the pulse, respiration and a slight elevation of temperature, 101.5°F.; pupils slightly dilated, but not markedly so.

On inquiry of his grandmother, who slept with and "cared" for the child, I found that he had "had a good night" but when he woke up she said he felt better but was a little nervous. The grandmother, who claimed extraordinary ability to heal the sick, thinking "he might have worms" gave him some "flourendofendung" and "soon afterwards he could or would not speak and he has been that way ever since."

What the "flourendofendung" could be the doctor did not know and was determined not to ask, but to find out some other way, so he said: "How much did you give him?"

"About a tablespoonful."

That told nothing, so he asked, with "henbane" and other herbs floating through his head, "How did you fix it?"

"Put it in a cloth and turned boiling water on it and poked it until it got milky and then put in some sugar. It don't taste bad: It might be a good thing for you to know. It is good for sick stomach, diarrhea, worms and any inflammation. It might help you out sometimes, etc."

Stuck again, but by dint of keeping up the talk it came out that it was hen manure. Ye gods and little fishes! The doctor nearly collapsed with mingled feelings of nausea, digust and anger.

The little fellow died in about a week. The diagnosis on the death certificate was "leptomeningitis." Should it have been "flourendofendungitis" or "damphoolitis."

Seriously—How should such things be met?

S. P. Taylor.

Walkerton, Ind.

—:o:—

Some months ago in commenting upon a contribution sent us by another doctor, we referred to the disgusting things which had been used in medicine. It certainly seems inconceivable that in this supposed-to-be age of general intelligence, there should still be such disgusting folly and criminal ignorance. You asked us how you are to deal with things like this. It is a problem; but we know of no other way than to tell the truth and bring the matter right home to each culpable individual. It may be that you will lose practice by such a procedure, but we believe not, and in the end you may save valuable lives. We would tell such a woman kindly, but forcibly, that her disgusting medication is worse than useless; that in all probability it has placed the life of your patient in jeopardy; that if she calls a doctor it is her duty and the duty of the family to abide by the directions of the doctor and that you will refuse absolutely to treat any cases in which "household" medication like this is used or anything else given which you have not ordered. These things are funny in a way, or they would be if they were not so tragic—Ed.

BOIL IT DOWN!

The following, clipped from the *Sunday School Times*, puts the thing in a nutshell. We want to hear from every member of the "family" possible; if all "boil things down" we can give every one a chance.

When you've got a thing to say,
Say it! Don't take half a day.
When your tale's got little in it,
Crowd the whole thing in a minute!
Life is short—a fleeting vapor—
Don't you fill the whole blamed paper
With a tale, which, at a pinch,
Could be cornered in an inch!
Boil her down until she simmers;
Polish her until she glimmers;
When you've got a thing to say
Say it! Don't take half a day!

JUST ONE RESULT OF POSITIVE MEDICATION.

I treated my boy according to your advice and the eupurpurin, collinsonin and hydrastin acted just wonderfully. The boy had taken a great deal of apocynin before, but it did not work any longer. As soon as I gave the other remedies the effect was astonishing. I gave the boy, here and there, some calcium sulphide.

TIME EXTENDED UNTIL JANUARY 15, 1907

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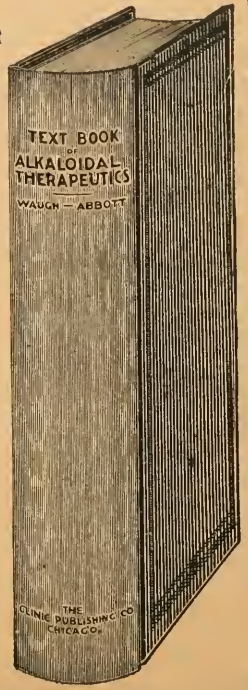

THIS book contains the information obtainable to date, upon the essential active principles used in medicine. It is a veritable cyclopedia of Alkaloidal therapeutics with blank pages for the doctor's commentary. No doctor's library is complete without it. It is an absolute necessity to him who would be up to date. The therapeutics of each remedy are given in full. It contains more about the alkaloids and active principles than any other book ever published, in any language. It is a condensed resume of all available literature on the subject of active principles, added to the personal experience of the authors. 405 pages and 238 chapters, a storehouse of ideas that any progressive physician can convert into "coin of the realm."

Notwithstanding the name, it is more than alkaloidal, since, among other things, it deals with the concentrations, glucosides, resinoids and many of the metallic drugs and salts in daily use. While it is distinctively American the authors have drawn upon the foreign Dosimetric and other European literature, as well as the practice of Americans of all schools and methods. One of the most valuable sources of information has been "Clinical Medicine" itself and the extensive correspondence which the editors have carried on with thousands of physicians, upon subjects of practical importance. The result is a book whose primary purpose is that of helpfulness. It is exactly what it claims to be upon its title page: "A condensed resume of all available literature on the subject of the active principles added to the personal experience of the authors." And not less fitting is its dedication: "To those who believe in 'the smallest possible quantity of the best obtainable means to produce a desired therapeutic result'."

OPINIONS OF THE PRESS

"THE FIRST TEXT-BOOK."

It has long been our belief that physicians should devote their therapeutic study as closely as possible to the active principles. This is the only scientific materia medica of last analysis—to which all experimentation must be finally reduced. The W-A Alkaloidal Therapeutics is, we believe, the **first text-book ever produced on the subject.** As a pioneer in this most important branch of medical science it will be found very useful. It should be in the library of every physician in active practice.

The Medical Council.

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The W-A Alkaloidal Therapeutics is a book of **exceptional interest** throughout and should be in the library of every practitioner and student. Active-principle therapy has assumed so important a position that no physician can consider himself well informed who is not familiar with its teachings.

Medical Fortnightly.

"SCIENCE DEMANDS IT."

The W-A Alkaloidal Therapeutics deserves the careful consideration of the profession. The days of nause us doses are passing. The public demand is for newer therapeutics and relief from the bitter dose and nasty ointment and liniment. Newer therapeutics will place in the hands of the profession the single-minded curative. Shotgun prescriptions must go—**science demands it.** Dr. Abbott and the writers of this book are to be congratulated upon the energetic way in which they are attempting to lead the profession on to more intelligent methods.

Advanced Therapeutics.

"VALUABLE INFORMATION."

Every member of the medical profession should acquire a thorough knowledge of Alkaloidal therapeutics. To acquire this knowledge he can find no safer guide than the W-A Alkaloidal Therapeutics. Apart from the subject of Active-principle therapy it contains much interesting and **valuable information** on the physiologic, therapeutic and toxic action of drugs.

St. Louis Medical Era.

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The authors of W-A Alkaloidal Therapeutics are the most capable men in this country to produce such a work, as they can be considered the fathers of Alkaloidal practice. **Everything in the book is solid meat.** There are no useless words and no padding. The remedies are considered in alphabetical order so that any preparation may be quickly found. A complete therapeutic index makes everything in the volume very accessible. The book is interleaved with blank pages. In it the physician will find many useful hints which will broaden his knowledge. It is a necessity in his library.

Wisconsin Medical Recorder.

"Facts Fully Proven."

The W-A Alkaloidal Therapeutics is a summary of the work of Burggraeve and all previous writers with very much of recent knowledge, which is really of the utmost importance because these statements are facts fully proven. We advise our readers to purchase a copy.

The Chicago Medical Times.

OPINIONS OF DOCTORS WHO HAVE READ THE BOOK

"TRUTH IS MIGHTY."

I have carefully examined the contents of the W-A Alkaloidal Therapeutics sent me September 26, and I find it not wanting. **Truth is mighty,** and will prevail. Oh, no, you can't have it back, so I will enclose the three dollars for it and "Clinical Medicine" for one year, and kindly thank you for the confidence imposed.

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Alkaloidal Therapeutics is certainly the **best thing on the subject** up to date, and by far surpasses all other works. It is what we are all looking for.

—, Okla. Dr. F. L. K.

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—, O. Dr. J. B. McG.

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—, Mich. Dr. E. E.

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—, Ia. Dr. W. C. W.

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If CLINICAL MEDICINE has proved interesting and helpful to you in the past it will be even more so in the future, not only next year but for the years to come. Although the journal was wonderfully improved and enlarged last January, still further additions and improvements are planned for 1907 (see Editorial Department, page 1479).

Many of our subscribers have said it would be impossible to add to the present strength of CLINICAL MEDICINE but we don't agree with this. No man's work is so good that it cannot be improved and ours is no exception. We shall do our level best every day of every week of every month, and we believe you will be agreeably surprised at the constant and steady growth of this journal in interest and helpfulness.

Do not put this matter off. Pay up old scores, if any there be, and send your renewal remittance today! If you are not certain of the amount be sure to send enough and we will credit you in advance or return balance, as you say. This one-dollar-rate opportunity positively goes out on January 1st, 1907. Act promptly, and in addition to your own renewal send us a new subscriber if you can—rather, ***if you will,*** for to do so is dead easy if you'll but try.

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Present Foreign Subscription Price $2.00 a year. After January, 1907, $2.50 a year.

He is perfectly well now and has begun going to school for the last two weeks.

May God bless you for your help in time and eternity. I love your JOURNAL, and miss the "Digest" badly. Hope you will soon send it to me.

F. L. RICHTER.

Fargo, N. Dak.

THE INCREASE IN PRICE.

As announced in our December number the subscription price of CLINICAL MEDICINE, commencing with this issue, has been raised to $1.50 a year. But in order to give every one a chance to renew, or to get in a new subscription at the old price, we have extended the time for so doing until January 15th. Please attend to the matter at once. Fill out the order blanks to be found elsewhere and make your remittance at once. Also, call the matter to the attention of any of your friends who you think would like to become subscribers. This it the last chance to get the CLINIC for $1.00.

We have been very much pleased with the reception given this change by the "family." We have simply been snowed under with letters—but not in a single instance has there been any objection made to the increase. Quite the contrary. The majority heartily approve, as in the following:

Just, Wise and Safe.

No one entitled to any opinion will think your advance in price other than just, wise and safe.

DR. V. M. DOW.

New Haven, Conn.

The Price is Right.

The December number of CLINICAL MEDICINE is O. K. and the price is right.

DR. T. M. ENGLEHART.

Mt. Clemens, Mich.

No Complaint.

CLINICAL MEDICINE is well worth $1.50, and to me it is worth much more than some others at $5.00, which I also take. I hardly think there will be any complaint at the rise on January 1st, not at least by those who value alkaloidal therapeutics as I do.

DR. C. L. MYERS.

Covington, Ind.

Owes Success To It.

CLINICAL MEDICINE is worth all you ask and more too, for to it I owe my success.

DR. J. G. WOLFE.

Frances, Ky.

Well Worth It.

I am sending $1.00 renewal—because you say I may, although I think CLINICAL MEDICINE well worth the contemplated $1.50. Good luck to you, and I hope and trust your circulation will continue to steadily increase—as it surely deserves to.

DR. SETH V. GOLDTHWAITE.

Boston, Mass.

Enthusiasm Worth More.

I have not been saying much about CLINICAL MEDICINE, but I am sure I have been getting many times my dollar's worth from it. Your enthusiastic optimism is worth much to those who follow you.

DR. G. G. THORNTON.

Lebanon, Ky.

Two Dollars Not Too Much.

I send renewal to CLINICAL MEDICINE for one year, in response to the liberal offer for renewal before January, 1907. This I would have done though the price had remained at one dollar, for I often find one number of the journal worth that sum. When my subscription expires, if I am living, I will renew again, even if the price is two dollars, and not think it too much.

DR. D. P. BELL.

Elberton, Ga.

Will Stay With Us.

I send a dollar for renewal, or in other words I take advantage of your special offer. I get more than a dollar's worth out of CLINICAL MEDICINE every month, but as long as you are willing to sell it to me for a dollar a year I am not going to pay any more, and when you raise the price to $1.50 I will still be with you, even to $2.00 and $3.00 a year. I would write more, but I am home tonight and the children are having a big romp so I can't get my thoughts together. I have just dismissed two cases of diphtheria and one of appendicitis, all of whom got the alkaloidal treatment and made rapid recoveries. Pneumonia and typhoid fever have lost all their terrors.

DR. A. F. KERR.

Greenville, Va.

Only One Clinic.

There is only one ALKALOIDAL CLINIC and Abbott is its prophet. Glory and honor to both!

DR. JOHN BURDIS.

Shingle, Cal.

We might continue these indefinitely, but these show the cordial response to our efforts. To these brethren, and to all the brethren, we want to express our thanks for all these expressions of appreciation and the more substantial financial support which is flowing our way as never before

in the history of the CLINIC. We need it, for the expense of producing the journal has increased enormously, and for every dollar received we have been putting more than one into our efforts to make it better. Help us in this—and help us, also, in swelling its circulation. Let us have your remittances promptly.

LOOK ON THIS PICTURE, AND ON THAT.

We have had quite a discussion. Thanks for your advice on typhoid fever. I treated a fifteen-year old girl last week with typhoid. Her temperature was 104 1-2° on first visit. I gave calomel in small repeated doses, followed with Epsom salt, producing eight or ten stools. Then every morning salts to full laxative effect. Here is half the battle. I find salts, given every day, then every other day later on, is a powerful aid to cure. The old whim not to disturb the bowels with purges is foolishness now with me. Those who keep up a mild diarrhea all through get along much better.

Just after the first action of salts I put the girl on the sulphocarbolates at the rate of ten grains every two hours, or five grains per hour, and if stomach rebelled, small fractions of a dose, so as to give the amount. This way does not sicken. I gave her nothing to eat, only plenty of water, egg albumen, etc., till the temperature lowered, which is on the fourth or fifth day. Echinacea tablets were given after the second or third day. Now I tried to lower fever with acetanilid, and cool water for relief only, but the temperature is notoriously rebellious to control in typhoid the first days of attack.

I began this treatment with the above named girl on Monday at noon; next Sunday, six and a half days, she was absolutely well, and dismissed with tonics.

Also another case: Young man, 24 years old, seventh day dismissed cured.

Also a third case, old lady 50 years old, been under treatment six days. I am sure now today she will be well in three days and dismissed. Her case began with temperature of 105° and extreme prostration. Echinacea, showed its power and good effects in her case. So this is the work I have done last week in typhoid, and here is what is said about it: "Ah, you did not have to treat that old 'bad kind of fever' like we have." And right here the cases are parallel with the rest. Other cases in sight have been all of them as a rule thirty to ninety days before they are out of bed, with extreme prostration thirty to forty days. Why, I just treated one of these old cases to help her up (a lady); began treatment fifty-second day of her illness. Poor mortal, if I could not cut short and do better work than is done, as is taught by text-books, as sure as I am a man I would not take any case of typhoid.

I will have to give it up, and am glad to do so, that the alkaloidal treatment for typhoid is far in advance of anything else known. I am now ready to stand up and defend this treatment against I don't care whom. The work praises itself.

I. N. MEYERS.

Speedwell, Tenn.

—:o:—

In connection with this, read Dr. Meyers' previous article, published in the October number of CLINICAL MEDICINE, page 1339. Other comment is unnecessary—for the Doctor has seen "the error of his ways." So will others if they will but put these things to the test.—ED.

SOME USEFUL SUGGESTIONS.

In urinary incontinence, especially in children, give atropine gr. 1-500 t. i. d. and an extra granule at bed time.

In urinary incontinence due to general weakness, especially of the sphincters, add strychnine nitrate, gr. 1-134 to each dose.

In urinary incontinence due to irritation of bladder from foul urine add lithium benzoate, gr. 1 to each dose.

In urinary incontinence from cystitis, add a granule each of aconitine (gr. 1-134) and cannabin to each dose.

Atropine, gr. 1-500 to 1-250 every fifteen minutes is useful in hemorrhage from any part of body. Hydrastinine, gr. 1-12 should be added to atropine if the bleeding is from

uterine membranes. This combination effective:

Atropine, gr. 1-250 till dryness of mouth is noticed, is efficacious in ovarian neuralgia, dysmenorrhea, etc. Dioscorein, gr. 1-6, should be added to relieve the severer pains.

In excessive sweating, especially at night, pulse slow and soft, skin cold and clammy, atropine, gr. 1-250, every half hour will soon change conditions.

In acute coryza, beginning of congestion, give atropine, gr. 1-500 every half hour until dryness of the throat is noticed, then less often. Hamamelin, gr. 1-6, should be added to atropine if bleeding from veins is due to a general relaxation of their walls.

I gave dioscorein, gr. 1-6 in hot water every ten minutes, in severe gallstone colic, and sodium succinate ever since for last six months with but one slight return of pain. Podophyllin and saline to keep bowels in normal condition completed the treatment.

M. B. Stine.

Crooks, S. D.

WHY SOME PHYSICIANS DISPENSE.

The *Western Druggist* and several other druggists' journals have lately published some peculiar articles on how to restrict physicians from dispensing their own medicines. The *Western Druggist* cites the new law of North Dakota, and urges that every state adopt a similar statute. That law forbids a physician from dispensing except in emergencies. It considers all lives safeguarded when physicians are allowed to dispense only in emergencies, or, if they do, then the law should make it incumbent on the coroner to hold an autopsy and determine the cause of death and that a certificate by the attending physician in such a case shall not be acceptable. Druggists and their journals will be wise if they will discontinue immediately such agitation.

Just at this time, with the enactment of a national pure-food law and the general exposure of patent medicines and medical quacks, and knowing that druggists almost universally substitute, counter-prescribe, refill contrary to orders, secretly sell intoxicants and narcotics when not licensed or entitled to do the same, and put up and sell for every ill some magical preparation, it may be that public attention may be turned on them if they persist in trying to manage the physician's practice and privileges.

Recent experiences with a graduated pharmacist of fifteen years' service in drugstores have changed my views. Here are a few of the druggist's ethical and also careful acts in the dispensing of medicines:

1. A gentleman came into the drugstore and said: "Mrs. R. has a severe pain in her stomach. Can you give me something for her?" (I stood near by). The druggist dispensed three ounces of essence of Jamaica ginger with directions, *ad lib.* according to pain. Three hours later I was roused out of bed to find a lady 70 years old doubled up in bed writhing in agony, and it seemed as though she might die any moment. I diagnosed acute gastritis complicated with gastric ulcer. With energetic treatment she recovered.

2. I wrote a prescription for an ointment to be used in a case of rheumatism. Salicylic acid was one of the principal ingredients. Just as the ointment was about to be labeled I passed by the dispensing stand and noticed that sodium salicylate had been used instead. I called the druggist's attention to it.

Now, my dear Doctor, do you understand why you do not get good results with certain "prescribed" drugs; perhaps I should say "dispensed"?

3. I prescribed mercuric chloride in a solution of potassium iodide, so that by chemical interaction 1-8 grain of the red iodide of mercury resulted for a dose. I noticed a puzzled expression on the druggist's countenance. He looked in the Pharmacopeia and Dispensatory, and then asked me whether an eighth grain of the bichloride of mercury was not a very large dose to give per mouth. One-eighth grain of mercuric chloride and 5 grains of potassium iodide in a dram of water given three times daily after meals to a man weighing 180 pounds, while waiting for a better preparation, cannot be far wrong in a case of late secondary syphilis, I believe.

4. The druggist dispensed the following as per prescriptions:

Ext. digitalis.....
Quinine hydrochloride, aa grs. 20
Ext. nucis vomicae.....grs. 8

M. et Ft. in capsulae No. xxx. Sig: One capsule t. i. d., p. c.

Hydrarg chlor. mit.....gr. 1-2
Sodii bicarbonatis.....gr. 1-2
Resinae podophyllinii....gr. 1-12
Tabs. No.....

Sig: One tablet every half hour for five doses one hour after supper.

The boxes were alike in size and appearance. The covers became transposed. The patient had a very uncomfortable night and informed me the next morning that my medicine was too strong. It seems that had the extract of digitalis and nux vomica been of full strength a case of accidental poisoning might have resulted. In such a case the dispensing boxes should be of different sizes, of course.

5. An ointment of the yellow oxide of mercury was made up so "gritty" that the patient said it nearly burned her eye out at the first application, if she had not immediately washed it out.

6. Alphozone was dispensed in a paper box, but I saw the druggist and had him put the tablets into an air-tight bottle. The drug on exposure to the moisture of the air is promptly decomposed.

7. He told me that he was very much opposed to counter-prescribing, yet cases of acute rheumatism, acute bronchitis and grippe are but a few samples of cases in which he prescribed.

8. I found many cases in which the directions were written wrong on the labels of the medicine bottles, besides being written illegibly in most of the cases.

This druggist like most of them, listens to the patients symptoms, pretends to diagnose, and then will either mix up something according to some old prescription or hand over the ever-ready patent medicine.

These are a few of the reasons why I am compelled to dispense.

A. F. Zimmerman.

Los Angeles, Calif.

This is an important subject which will be taken up later. Look out for Clinical Medicine next month. Let us have the evidence for both sides—and a "square deal" for doctor and druggist.—Ed.

ALCOHOL HARMFUL IN ACUTE DISEASE.

At the Toronto meeting of the British Medical Association a luncheon was arranged and many speeches given protesting against the use of alcohol medicinally; also Sir Victor Horsley, F. R. S., in his "Address on Surgery," dealing particularly with operations on the brain, told us that in cases of hemorrhage or collapse to "give any other drug but alcohol."

Immediately on my return to work, I was called to see a girl one and a-half years of age and after careful inquiry I diagnosed alcohol poisoning. The child had been sick five weeks; illness started with convulsions. The doctor gave enemas and got unmasticated potatoes and a long stomach worm. He also used hot and cold baths and in some way a pneumonia developed. August 26, I found one small spot posteriorly in the right lung, not clear; the child was nervous and hollow-eyed; pulse 126, respiration 38, temperature 103°F., very thirsty, two passages each day but the milk and food evidently not well digested.

The treatment included one dram of whisky every two hours night and day, also seven drams of the so-called predigested beef foods, having a good percentage of alcohol as a preservative. My diagnosis led me to order milk and water, of each three ounces every three hours with water between times and two dosimetric trinity pills in twenty-four teaspoonfuls of water, one dram every hour, lobelin gr. 1-12 four times a day to combat chronic constipation and the remains of the pneumonia, and sodium sulphocarbolate sufficient to deodorize the napkins.

Then the important part of treatment was sleep, not to disturb the child at night for anything, using infants' anodyne sufficient to keep the child asleep at night and for two hours in the afternoon.

Next day good results were manifest: Temperature 102°F.; next day 101; but from that on an evil genius seemed to maintain the temperature and it would vary from 103°F. at 7 a. m. to 102°F. at noon, after which it would drop again.

Finally I got the history that milk had never agreed with the child, so I ordered fruit juices (oranges, grapes, peaches) and arrowroot biscuit in cream. September 5, the child was up and around. In conclusion let me say that the whisky was doing no good, the milk was doing positive harm and the temperature which the nurse took always per rectum was a bugaboo caused by the highstrung nervous condition.

N. WALKER.

Niagara Falls, Ont. Can.

ARTIFICIAL FOOD.

The thanks of the funny folks in newspaperdom are certainly due to the writer in the *Dietetic and Hygienic Gazette*, entitled: "The Possibilities of New Sources of Food." We simply seek here to anticipate the deluge of jokes this article will provoke, if general attention is directed to it. The idea in it is too important to permit it to be laughed out of court without serious consideration.

The writer says: "Why should we not succeed through chemical synthesis in producing an artificial food suitable for the requirements of man?" Starch has been manufactured in the laboratory, why not other foods? Cellulose is convertible into glucose. There is no reason why inventive genius cannot succeed in rendering cellulose into nutritious and digestible forms.

The increasing population of the world demands increasing supplies of food. The destruction of forests as well as the leeching and erosion of soils lessen the fertility of the earth. The time must come when the growing population will reach the limit of possible supply. It will be indeed well if by that time chemistry shall have solved the utilization of cellulose, the fixation of atmospheric nitrogen in edible forms of nutriment, and similar problems. Synthetic starch and proteids seem after all less visionary ideas than synthetic cocaine and other alkaloids.

SAMBUCUS CANADENSIS.

A correspondent asks us to give the therapeutic uses of Sambucus canadensis—the common American elder. This plant has been widely used by the laity, herbalists and "grannies" for over two-hundred years. The "tea of elder flowers," indeed, was considered a sovereign remedy "for colds, inflammations, stoppage of the water and great swelling of the belly." Our grandmothers were particularly fond of elder flower tea in dropsical cases, and "fresh colds," on-coming fevers, suppressed menses, and malarial chills were all indications for its use.

The European elder (Sambucus nigra) while a somewhat larger shrub, has precisely similar therapeutic properties and is of course the variety to which history attaches. The U. S. P. recognizes the fresh flowers only, but the berries, leaf-buds and inner green bark are all used in popular "medicine." As a matter of fact each has a different action.

A hot infusion of the flowers is powerfully diaphoretic and diuretic. Cold the preparation cools, increases diuresis and exerts a mild alterative action. In erysipelas the eclectic of some years ago promptly exhibited sambucus infusion, adding thereto, perhaps, some of the juice of the berries evaporated to a thick syrup. The latter preparation is an active purgative as is also an infusion of the young leaf-buds. It is said that less than an ounce of the juice of the berries evaporated as above will purge freely and without griping. The infusion of the leaf-buds is extremely potent and must be given to children in two to four-dram doses only. The infusion (and tincture) of the flowers with the expressed juice of the berries is used in scrofulous conditions, syphilis, various skin disorders and wherever a pronounced alterative action

is desired. These preparations are said also to be of service in rheumatism. The inner bark possesses purgative properties also; infusions in cider or vinous menstrua acting promptly, producing several watery stools. The urinary output is also increased.

This inner bark from Sambucus nigra has been used in epilepsy and with good results, doubtless in cases requiring elimination. King ("American Dispensatory") speaks of the bark as being "emeto-cathartic and purgative." The bark of the American elder is used in various dermal diseases (eczema, psoriasis, pruritus, etc.) as an ointment. In some cases the flowers are also added. Fenner's Formulary directs, "elder leaf (or green bark) three parts, suet three parts, lard three parts—boil." The writer has an old formula calling for "elder flowers (fresh), eight ounces; young elderwood bark, eight ounces; suet, eight ounces; lard, eight ounces. Gently stew these together for two hours in a double vessel, strain and add four ounces of resin cerate. An excellent ointment for sores, and running skin disorders." From experience I can vouch for the efficacy of the preparation.

The eclectics use sp. tr. sambucus quite extensively, considering it to be an active eliminant, increasing secretion generally and exerting an alterative action upon the glandular structures. In dropsy "two ounces of the cold infusion four or five times daily" is recommended by Neiderkorn. Ellingwood ("Materia Medica and Therapeutics") says: "A strong infusion is sometimes of great service in removing dropsical effusions. Cases are reported in which extreme general dropsy seemed to threaten death where immediate relief was obtained by the use of this remedy." The sp. tr. is not recommended here. The latter is said to be "alterative, cathartic and diuretic, of use in renal inactivity with muscular aching, stiffness or rheumatic pains."

It appears, then, that fresh infusions of elder flower leaves and bark are diuretic, diaphoretic, alterative and cathartic. The juice of the berries is cathartic and emetic. Internally the drug is of use in dropsy, fevers, scorbutic conditions, dermal disorders of exudative type and wherever an alterative is called for. Its value in erysipelas must not be forgotten. *Externally* elder flower water is used as a pleasant cosmetic, and ointments prepared from the flowers, leaves and fresh bark are useful in eczema ulcers, "scald head," mucous patches, etc. In short, elder ointment should be of use in any exudative skin disease.

To the active-principle man the composition of the plant is of interest. Little however has been done towards identifying the active principles. Lyon found an amorphous yellow glucoside in the flowers (their bitterness is due to its presence), and a volatile oil (which is dissipated by boiling) also exists. This oil can be obtained by distillation and is then of the consistence of butter. It has not yet been used to any extent in therapeutics. It might well be experimented with in dermic disorders.

"Elder-rob," the juice of the berries, is of a beautiful purple color and on the addition of an alkali turns dark lilac; with an acid scarlet. If lead acetate is added the coloring matter is thrown down as a blue deposit. The juice contains gum, tannin, coloring matter and malic and citric acids. A dark brown unknown resin and slight traces of fat also exist. The bark is known to contain a volatile oil, valerianic acid, resin, fat, sugar and tannin with extractives. Moosebrugger in 1895 stated that glucosides, alkaloids, starch and tannin were absent. Under these circumstances it is a little difficult to determine whereby sambucus exerts its cathartic and diuretic action. The glucoside and oil found in the flowers and the oil existing in the bark must under existing circumstances be looked upon as the active agents.

The oil obtained from Sambucus nigra (identical with S. canadensis) is regarded by European chemists as the important constituent. The U. S. Dispensatory speaks of this as "a yellow or greenish-yellow, butter-like mass of bitter, warming taste and power-

ful odor." The yield is about 1 per cent. It is interesting to note that the U. S. Dispensatory speaks of elder flower as "devoid of medicinal value and rarely employed save as household remedies." It may well be stated here that the fresh root of S. canadensis has been found to be extremely poisonous, children who have eaten it dying shortly after; the symptoms resembled those caused by hemlock (cicuta). Alpers has discovered undoubted evidences of an alkaloid in the root of American elder, the odor of which resembled cicutine. Probably further investigation will reveal traces of this substance in the bark and leaf. In the meantime the ointment, infusion and sp. tr. will have to be used empirically.

GEO. H. CANDLER.

Chicago, Ill.

"NOSTRUMS"—TWO OPINIONS.

How can the profession be brought to a better attitude as regards the present evil? Many think the solution is to be found in more teaching of prescription writing, of lectures on therapeutics. I differ from those who hold this view. What is needed is (1) broader and deeper training in preliminary and biologic branches and the cultivation of exact habits of mind; (2) a more intense study of pathology, not merely to acquire anatomic data, but to learn the actual results and extent of the lesions in common diseases, so that the student may offset speculation with fact; (3) a more intimate study of clinical medicine, that can only come from more prolonged and more personal investigation at the bedside.—DOCK, *J. A. M. A.*

Placebos have another bad result. They weaken the confidence of the patient in the physician, because every placebo is a lie, and in the long run the lie is found out. We give a placebo with one meaning; the patient receives it with quite another. We mean him to suppose that the drug acts directly on his body, not through his mind by means of expectant attention. If the patient finds out what we are doing he laughs at it or is rightly angry with us. I have seen both the laughter and the anger —at our expense. Placebo giving is quackery. It also fosters the nostrum evil.

The "patent medicine" and nostrum industry will be seriously crippled when we do two things:

(*a*) Stop advising secret remedies which may be poisonous or inert.

(*b*) Stop fooling our patients with placebos.

The positive side of all this negative advice I have tried to explain in another paper.—CABOT, *J. A. M. A.*

Neither has yet realized that the remedy is in studying and scientifically applying our drug remedies. Nor that that is impossible except by employing remedies whose action is exact and unvarying. The greatest part of practice will always be the use of drugs—let them be used properly and where is the objection?—ED.

THE BLOOD IN HEALTH.

Healthy arterial blood shows the bright color of oxyhemoglobin due to oxidation of the hemoglobin. The more oxygen it loses, the darker the blood becomes. The reaction of the blood during life is always alkaline. If a strip of red litmus paper moistened with a concentrated solution of sodium chloride is drawn several times through blood and then quickly washed off in salt solution a distinct alkaline reaction will, as a rule, be seen. To determine the degree of alkalinity of the blood various instruments can be used, such as Dare's hemoalkalimeter, this being the one mostly used.

As to the specific gravity of the blood, this averages 1055, and is most accurately estimated by the Schmaltz pyknometric method in which about two drops of blood are employed. Or the method of Hammerschlag can be practised by any physician, the technic of which can be found in any textbook on clinical microscopy and chemistry.

The total amount of blood in the human body amounts to one-thirteenth of the body weight, and is composed of plasma holding the fibrin in solution and the cellular elements, the red and white blood corpuscles and blood plates. The red blood cor-

puscles are called erythrocytes and contain a coloring matter called hemoglobin.

The microscopic examinations of the blood are made with freshly drawn blood and with dried blood preparations. In fresh blood, examinations proceed as follows: Carefully clean the finger tip or lobe of the ear and draw a drop of blood with a lancet, then with a pair of forceps grasp a cover glass, touch it to the drop of blood and place it as soon as possible upon a slide, so that the whole space between the cover glass and slide is occupied by a uniform layer of blood. Pressure upon the cover glass should be avoided. Now examining with a 1-6 lens, the red blood corpuscles can be seen in rouleaux.

The counting of the red blood cells is of the greatest importance and is best made with the Zeiss counting apparatus but the counting chamber recently introduced by Turck is the one I would recommend, as it has separate divisions for counting the white blood cells, or synchronously with the red cells.

In the examination of fresh blood with the microscope it must be diluted, one part of blood to one hundred parts of a three per cent solution sodii chloride, and mixed in a Grawitz blood mixing pipette, according to the Thomas-Zeiss method.

The average number of red blood cells for a man is 5,000,000, and for a woman 4,000,000 per cubic millimeter; however, 6,000,000 to 7,000,000 red blood corpuscles per cubic millimeter have been observed in perfectly healthy persons. The number of white cells in a healthy person varies from six to ten thousand in one cubic millimeter of blood.

In testing the blood for hemoglobin various methods are used, such as Gower's and Dare's, but for the general practician the Tallquist hemoglobin scale, which is made in book form and sold for one dollar, can be highly recommended. To be correct this book contains fifty sheets of smooth filter paper, each divided into three smaller sheets, giving a total of one hundred and fifty sheets. It also contains a scale of ten colors for comparison. To make a test a small sheet of the paper is brought in contact with a drop of fresh blood, allowing it to be absorbed slowly, and as soon as the moist gloss is lost it is compared with the color scale and results will be obtained at once. This examination can only be made in daylight.

The determination of the freezing point of the blood has also acquired clinical significance and it is claimed that the lowering of the freezing point of the blood to below 58°C. almost always indicates a bilateral affection of the kidneys.

W. F. Radue.

Union Hill, N. J.

DID THEY?

Did the Royal College of Surgeons of Bavaria ever reconsider its vote that high fences should be placed on both sides of the railroads to prevent cerebral disease of the passengers? Did Hodge and Meigs ever acknowledge that puerperal septicemia was infectious? Did ever a hater of the eyestrain "faddist" ever acknowledge his blundering?—*American Medicine.*

CASES HELPED WITH ARBUTIN.

Mrs. J. C., age 58, white, married. Diagnosis, chronic parenchymatous nephritis and enterocolitis. This patient was in a very serious condition, as edema of legs was so intense as to cause great pain and prevented her walking or standing; progressive loss of flesh and strength, marked anemia, increased arterial tension, gastro-intestinal disturbances, hypertrophy of heart with accentuated second sound and uremic symptoms well developed. Urine, one quart in twenty-four hours.

In twelve hours after putting her on arbutin a change was noted in her symptoms. The bowels became very loose, the edema went down, symptoms all left her, and it became necessary to give her arsenite of copper which checked the bowels nicely. The patient is now about, attending to her household duties, including washing and ironing. My deduction from this case is

that the patient having weak bowels from her ileocolitis that had existed for a number of years, the drug's diuretic properties were exerted on the bowels the easiest way and her system was cleared of urea and other poisonous compounds, and the result was a cure of the acute condition that was threatening her life.

Mr. A. C. S., white, age 57, hypertrophied prostate, patient getting up usually five or six times at night to pass urine. Acute cystitis developed and the urine had to be drawn by catheter several times. Constant desire to urinate, great distress, loss of appetite, some fever.

As soon as arbutin was exhibited the symptoms diminished and improvement was steady and rapid. He is still taking the remedy and occasionally gets up at night now to pass urine.

Mrs. E. T., white, aged 29, married. Has had catarrh of bladder for over eighteen years, necessitating her getting up many times at night and keeping her confined to her home at day, for the desire at times was constant. Has gone the rounds of the doctors, with no result until Sept. 12, 1906, she was put on arbutin and the result has been marked improvement which is continuing. She is now under treatment and doing better than she has in years. This is the kind of case to test the drug on and I am watching her closely. The drug so far has done more for her than any she has ever taken. She claims to pass more urine while taking arbutin, again substantiating the diuretic properties.

Mrs. W. H., white, aged 26, married. Relieved catarrh of bladder with tenesmus, in a very short time, an acute case, but recurring, as I have attended her several times for the same trouble.

Mr. E. H., age 62, white, married. Diagnosis, chronic parenchymatous nephritis. The patient was passing from a pint to a pint and a half of urine in twenty-four hours; albumin, and granular and hyaline and granular casts under the microscope. Pulse 156, temperature 105 F.; skin dry and hot, dropsy under the eyes and over the entire body; subsultus tendinum, pronounced anemia, progressive weakness, great prostration, vomiting, headache, vertigo and delirium.

This patient was in a serious condition and his family had given up hope of his recovery when I put him on arbutin, gr. 1 every two hours and calcium sulphide, gr. 1-2 every two hours, soap suds and normal salt enemas to move his bowels, and in eighteen hours he commenced to improve and at present is out and can do light work. This patient owes his present being to these two drugs alone; no other medication used.

The above is a brief outline of the most important cases in which I have used this drug (arbutin) with good results. I have used it in other cases also with the same result, and you are at liberty to publish these notes over my signature if you wish.

I have treated five cases of typhoid fever this summer with intestinal antiseptics, aconitine, strychnine and digitalin for fever, baptisin as a tonic, and the results have been reduced symptoms and a comfortable time for the patient, but fever ran the usual course, about twenty-one days.

W. M. Barnes.

Springfield, N. J.

—:o:—

It is experience which teaches after all and when a score or a hundred different men under different conditions and in different places secure similar results from the exhibition of certain doses of a given drug we can pretty well look upon that preparation as evenly effective. Arbutin is certainly a "dandy" remedy in these bladder and kidney cases.

By the way, Doctor, did you read Dr. Heyde's article on Typhoid Fever in October Clinical Medicine? That the sulphocarbolates shortened the course of the disease in his cases was pretty clearly shown. It is only by comparing the results obtained by the old and new methods that we fully realize *all* the advantages of the latter.—Ed.

A QUICK FILTER.

A nice and quick way to filter water for hypodermic use is to boil the water in a

teaspoonful over a common lamp, then place a small piece of absorbent cotton in the spoon and draw the liquid into the syringe through the cotton. By so doing you get a perfectly clear solution.

W. J. Foster.

Port Huron, Mich.

—:o:—

Be sure the cotton is sterile.—Ed.

CLERGYMAN'S SORE THROAT.

I have had the opportunity for several months to watch the effects of calx iodata in a typical case of clergyman's sore throat. This public speaker had been afflicted more or less with a condition of huskiness or hoarseness for a number of years and had never gotten any thing that seemed to do him any good, or at least any permanent benefit.

My experiences with calcidin in the treatment of respiratory difficulties had been so happy that I suggested a trial of this remedy in his case. One tablet, gr. 1-3, was allowed to dissolve on the tongue every two hours until relief and then was given only three or four times each day.

The writer would suggest a trial of this remedy in all cases of respiratory difficulty affecting public speakers and singers, the trouble originating from over use of the voice.

I have found calx iodata a valuable remedy for croupy conditions—not diphtheritic. In spasmodic croup it is sometimes necessary to use ipecac (emetine), apomorphine, hyoscyamine or some other relaxant for immediate relief and the calx iodata for the cure of the cause that produces the trouble. In this manner the croup habit can be broken up and future unpleasantness avoided.

C. C. Smith.

Clarksville, Ia.

SEWER-GAS POISONING.

In a late issue of Clinical Medicine you have quite an interesting article on "Illuminating Gas." How would it be if your readers serve and be served with something on the subject of sewer gas? It is my opinion that the harmful effects of sewer gas play a more important role in human suffering than is known. Especially must this appeal to us as true, since we are told that the most poisonous sewer gas is without odor. There are so many defective local drains in a city, backing up contents and their decomposing products, that this is a question of vastly more importance than shown by the attention paid to it in the past. I have tried very hard to inform myself on the subject of sewer gas and find the literature very meager on this subject. It might prove of great benefit to discuss this matter in your valued journal. It would be well for you and your readers to give a symposium on this subject.

I have gone to plumbers to inquire and learn about the effects of sewer gas. They all give a vague jumble of a story. It would be a good thing to present us with a systematic study of this subject. First, how shall we detect sewer gas? Is the peppermint oil test a reliable one? I fear not. This gas is so subtle that it may go where volatile oil cannot, I fear. The most chaotic aspect of the matter is our poor knowledge of the effects of sewer gas. It is my opinion that the effects are more far reaching than is even dreamt of. I know of an instance, supposed to be sewer-gas poisoning, in a certain old building in Chicago, in which there is a drugstore; no less than six clerks have contracted therein a similar syndrome of symptoms, which clings to their victims now for some years. The first manifestations seem to be nervousness, lassitude, anemia, insomnia, loss of appetite. Later on appear distinct and characteristic evidences of digestive disturbances, such as biliousness, gastrointestinal indigestion, peculiar oppression and burning pain in stomach and bowels, with irregularity of function. I believe this gas to be guilty of producing a final morbid condition of the digestive and hepatic systems, of which the afflicted may find it impossible to rid themselves. I believe this gas is taken up in the blood and secondarily is the cause of gastrointestinal and hepatic catarrhs.

This is the way the subject strikes me. I have watched a number of supposed chronic cases and they all complain a great deal in common. The question is, am I right? for the literature is very scant. I believe that a person once poisoned from sewer gas remains a more or less suffering wreck thereafter. Please let us hear about this. I know a number of chronic invalids who blame their suffering to sewer gas.

We should know more about this. In a large city this becomes a question of most vital importance. Let us hear from those who may know more about it.

ROBERT PETER.

Chicago, Ill.

—:o:—

We shall be glad to have the opinions of readers of CLINICAL MEDICINE on this subject. How great a part does sewer gas really play in the production of disease? Formerly it was thought to be one of the most important causal agents in typhoid fever, diphtheria, scarlet fever and other infective diseases. Few hold to this opinion now. It has been shown that bacteria are not given off from moist surfaces and that air charged with sewer gas is no more rich in germs than similar air minus the gas. It is an interesting fact, also, that workers in sewers, those for instance who spend their lives in the great sewers of Paris, are fully as healthy as other laborers.

The various gases which go to make up sewer gas are certainly not very toxic, at least not in the high dilution in which they are usually found. Carbon dioxide is the most important but its quantity is fully as great in any poorly ventilated room, minus the contaminating sewer odors. Sulphureted hydrogen may be present, but soon makes its presence known and in small quantities is not dangerous anyhow. The same is true of the marsh gas, ammonia and other gases which may be present.

The symptoms usually ascribed to sewer gas are headache, anemia, derangement of digestion, loss of appetite, etc., much as given by Dr. Peter. All of these however are easily ascribable to a sedentary life in poorly ventilated and improperly heated rooms. It is probable that most of the symptoms ascribed to sewer gas are due to this cause, i. e. poor ventilation. The possibility still remains that when there is a leakage extending over a long period of time, that it may cause obscure symptoms concerning which our data are still unreliable. Another probability is that much of the so-called sewer poisoning is really illuminating-gas poisoning, for it is known that carbon monoxide, the principal ingredient of illuminating gas, is powerfully toxic to the red cells of the blood and that anemia and malaise, with various other associated symptoms, are directly caused by it.

However, we turn the whole matter over to our readers.—ED.

ANTHRAX OR MALIGNANT PUSTULE.

Dr. M. L. Hooper of Indianola, Iowa, reports the successful treatment of a number of cases of malignant pustule. He first curets the external lesion thoroughly and applies a wet dressing of mercury bichloride, 1 to 1000. The preliminary clean out of the alimentary canal is not neglected. The internal treatment upon which he largely depends for his good results is the administration of calx iodata. Commencing with 8 grains a day the dose may be rapidly increased up to 30 grains. Severe cases looked upon as fatal in the beginning, yielded nicely to this treatment and ultimately recovered. Calx iodata was prescribed because of its well-known action upon the entire glandular system and his results commend the doctor's good judgment in the selection of the right remedy for the right condition.

Every patient treated had been working with some animal that had external lesions of some sort and in several instances were diagnosed anthrax by competent veterinarians.

We would suggest a trial of the above treatment upon conditions answering to Osler's description of external anthrax, to which the reader is referred for a typical

description of the cases treated by Dr. Hooper.

A WORD CONCERNING INVESTMENTS.

Medical and other journals have had a deal to say concerning investments within the last few months. Some of the medical journals have been particularly generous in telling the doctors of the country in what they should and in what they should not invest their money. Some of this advice is undoubtedly good, but not nearly so good as it might have been if the writers of these articles had been really conversant with the things they condemned. Fact is, the average doctor is about as good a judge of such things as the average medical editor. Fact number two, a fairly prosperous country doctor makes more money, saves more and invests it better than most editors.

We are not going to tell our readers where to invest their money. But we know this, that many doctors are interested in this question and are anxious to know of safe and profitable investments. And they are to be had. This country of ours is teeming with latent riches—undeveloped resources. Why shouldn't the doctor have his share? There is too much of a tendency on the part of supposedly cautious financiers to spread the belief that the only proper investments for the "common people" are those which do not pay! "Shoo—oh!" cries the millionaire, "hands off! No investment can be safe (for you) which pays more than 3 per cent. Put your money in a savings bank." Then he borrows it from the bank himself—and makes another million with it.

Are there any rules to guide a person in seeking investment? We shall have the temerity to suggest a few:

First. Never invest in anything which does not bear the stamp of absolute honesty. Any suggestion of "crookedness" or double dealing should condemn it utterly.

Second. Never invest in anything that you do not know something about. Go through all the ins and outs of the proposition and "check them up." See that the statements made concerning it square with known facts. If you can't get these facts don't invest.

Third. Never invest in a proposition until you have satisfied yourself concerning the integrity of the men promoting it—those who are going to control and manage its affairs. If the men at the head of it have a reputation for square dealing—if their business lives and reputation depend upon it—this should have great weight.

Fourth. Never invest in anything which smells of "stock jobbing." This is the curse of modern industry, as shown by the enormous issues of watered stock which have been unloaded on the people by the great "captains of industry." Compare the probable earnings with the value of the capital stock at the current price, to determine probable profits of the investment to you.

Fifth. Never invest in any company until you are assured that it has the property it claims to have and that this is of ample tangible value. At the same time it is your privilege to put in your money and take your chances with the rest in developing a property with genuine big "propects." But go in with your eyes open, don't strain yourself financially to do it, don't be in a rush for or expect early dividends and don't squeal if you lose. The chances are, if you use your good sense and judgment as we have outlined, that you will win.

Sixth. Never condemn a whole class of investments because some or many are faked. The best and most profitable investments always attract the most fakers. For instance it has been the fashion of late to pooh-pooh at all mining propositions as "fake schemes." How foolish! Some of them, perhaps most in numbers, as presented, are; but many of them are not! Mining is one of the greatest industries of the country, and, more than that, properly conducted, it is one of the most profitable. What can be more honor-

able than the honest development of nature's resources for the use of man.

Seventh. "Don't put all your eggs in one basket," for there is no investment which is absolutely safe—to which there is attached no possibility of failure. Business men fail, professional men fail, even medical journals occasionally fail! So do farms, factories and mines.

The doctor's surplus earnings are his reserve for the rainy day. It is his duty to invest them where, with the greatest or at least a rational probability of safety, he can secure the largest return. With some careful thought, intelligence and common-sense, together with concerted effort, there is no reason why the medical men of the country should not get their share of the nation's wealth. Isn't this subject worth careful thought? Is it wise to adjust yourself and your finances to the cock-sure judgments of some captious but none the less ignorant critic who may base his criticisms on personal experience only? And isn't it foolish of you to risk your hard-earned money without applying the foregoing rules?

You must remember that the returns on an investment are, as a rule, in inverse proportion to the risk. Two per cent United States bonds are now worth 102 in the open market. If you are satisfied with this return for your money you cannot do better than to invest in them. Many mines and many high-class industrial enterprises have returned several hundred per cent on the money originally invested in them. But those who thus invested took a risk and staid with it.

If you are satisfied with 2 per cent in Government bonds, 3 per cent in the savings banks—that *may* go up, that are as risky as many good development enterprises—or 5 per cent in mortgages that may depreciate, or haven't the time or discrimination to judge of opportunities outside of these, then stay with them by all means, or put your money in an old shoe; but the wide-awake progressive man will either create something for himself, as did the writer, or will join the honest men in the promotion, development and utilization of nature's resources, investing thus sparingly and wisely of surplus only and staying with it to success.

With the introduction of modern methods of deep mining, with the latest mechanical devices for the economical handling of ores, together with the great improvements that have been and will continue to be made in processes for recovery, a great impetus has been given to this industry. Old, abandoned, but exceedingly valuable properties are being reopened, abandoned districts are coming to the front and for the first time in our history mining, as an industry, is being put on a legitimate business basis.

ALKALOIDAL VERSUS GALENICAL PRACTICE.

Brother practicians, just a few words about alkaloidal practice. To judge from the letters in the JOURNAL each month, it seems hard for some men to take up the active principles. Brethren, if you will disabuse your minds of the idea that this is a new way of giving drugs you will find it easy enough. You have given pills and liquids heretofore; you still give pills, and, if you prefer, you may give them in liquid form now.

The only thing that is new or different from the old way is that you administer the alkaloid or active principle itself, instead of giving an extract of a plant containing from two to a dozen or more principles, some of them synergistic, others inert, some antagonistic, sometimes getting the desired result, often the opposite or no effect at all.

In the old way you are making a laboratory of the system to perform the chemical separation, when it is loaded down with work, instead of giving the single principle which has been separated and is ready to go right to work, helping instead of hindering.

Many of you have been disappointed so often in giving tincture this or that for some specific result that you have become

skeptical about drugs having the same exactness in all cases. We physicians are at the bottom of this quack medication which is being done by the drugstore and the department stores, that we and others are making such a cry about. The public has tired of paying us to experiment on them.

So, brothers, get out of the rut that your fathers followed. Study your cases minutely as to physiology and pathology, that you may make a close diagnosis. You can then give the alkaloids, singly or combined, that will correct and remove the simple or complicated symptom or symptoms present.

U. Grant Anderson.

Washington, D. C.

VARIABILITY OF GALENICAL PREPARATIONS OF DIGITALIS.

Dr. Fränkel (*Therapie d. Gegenwart*, Jan. 1906, p. 9) has shown that several infusions of digitalis ordered at the same time from several drug stores showed the same or the following day a variation in strength of from 100 to 275 per cent. In other words, a tablespoonful of one infusion represented the same strength as 2 3-4 tablespoonfuls of another. Among the tinctures the variation in strength was still greater, the difference ranging from 100 to 400 per cent. Attention is also called to the fact that the strength of digitalis leaves varies greatly, according to the season of the year in which they are collected.

RHUBARB.

In these days of hustle and progress there is a disposition to excel in all of our undertakings, in fact, if we succeed we must equal or surpass our competitor.

Medicine has caught the spirit of advance and we have the market flooded with staple, fancy and other preparations. Many of them are excellent compounds, and some mere mechanical mixtures; but all are elegantly dispensed. In fact, there is no more energy spent along the line of elegance in taste and looks than in therapeutic action. Some of the old and valuable remedies seem to have dropped from our sight and their virtue is sleeping in our memory. There is a spirit to day, that we think destined to prevail, looking to more precision in giving drugs. The spirit of the present time is positive knowledge. The physician today is judged by the profession and not by the laity as of old.

The old shotgun mixtures of the past are treasured now as relics of past ignorance. Physicians of progress all over the world are awake to the fact that they give medicine for some distinct action or purpose and not for looks or taste. In each dose there must be some active principle, to accomplish their aim and if this aim is reached by that active agent why need they combine other needless (active or inert) agents, to irritate the alimentary tract and neutralize or act incompatibly with the agent whose action is desired. In every drug we give we should know what active principle it contains and the effect produced by it, otherwise we are on dangerous grounds.

Not long since we were asked what active cathartic principle has rhubarb and what effect on this principle does roasting the root produce. On investigating rhubarb many interesting things were noted. It was found on the banks of the river Shea. It is uncultivated in most of the tropical regions, but there seems to be trouble in isolating the original species in consequence of the tendency of cultivated plants to form hybrids, and it is many times impossible to ascertain to which wild type the cultivated varieties belong. There are a number of varieties named, but the best grades come from China and Russia. It is said the root is not considered sufficiently mature for collection till it has attained the age of six years. It is dug in autumn and winter. The part of the plant used is the root. The outside bark is removed, then it is cut into convenient size and dried by different processes in which it loses at least four-fifths of its weight. Sometimes it requires a year to cure it, sufficient

for exportation. When stored it is prone to be attacked by the caterpillar of a small grayish white moth.

At present rhubarb is chiefly purchased for the trade at the town of Hankow on the upper Yangtse, the yearly export amounting to nearly seven hundred thousand pounds. In selecting the root much care should be taken to secure a good grade. Good rhubarb should be moderately heavy and compact, of a fresh color, a brittle fresh appearance, aromatic odor, and a bitter and astringent taste, feeling gritty between the teeth, staining saliva yellow when chewed, and affording a powder of a bright yellow color; or it may have a slight reddish-brown tinge. An inferior grade should be rejected. If very light it is rotten or worm-eaten. If very heavy or compact it has been improperly prepared or is of inferior species or culture. If dark-brown internally, very porous and has a prominent mucilaginous taste, it should be rejected.

The clinical properties of rhubarb are interesting. It yields all its activities to water and alcohol. It contains tannic, gallic and chrysophanic acid, sugar, starch, pectin, lignin, calcium oxalate, inorganic salts and four coloring resinous substances.

Calcium oxalate exists in the root in distinct crystals and gives it the gritty feeling between the teeth when chewed. It is said to constitute from ten to thirty per cent, the Chinese variety yielding by far the greatest quantity. By long boiling the virtues of the root are impaired. By the roasting of rhubarb its cathartic property is diminished, probably by the volatilization of the purgative principle, while its astringency is unaffected and it becomes a carminative.

As to the medicinal properties there seems to be no doubt. It is very extensively used with a variety of physiological effects. If given in large doses twenty grains is a decided purgative. If given in two to six grains it acts as a laxative. It is also tonic and stomachic, invigorating the powers of digestion. If a large dose is given it acts as an irritant to the mucous and muscular membrane of the bowel, producing a fecal rather than a watery discharge. Following the cathartic action there is an astringent action, due to the tannic acid contained in it. Some of its chemical substances are absorbed and stimulate the hepatic cells to increased action, increasing the flow of bile.

If long continued, in large doses, its coloring matter is absorbed and may be noticed in the secretions of the skin or alvine discharge and urine.

Rhubarb is combined with other drugs and is found on the market in many preparations. When combined with other cathartics it acquires additional activities. When combined with calomel it is a brisk and powerful cathartic and completely unloads the bowel. If followed by a saline the alimentary tract is clean.

The cathartic properties of rhubarb have been assigned to chrysophanic acid ($C_{15}H_{10}O_4$) and calcium oxalate (CaC_2O_4). But it looks as if chrysophanic acid did not so act, as it is not found free in rhubarb, but is found when the root is digested in water through the breaking up of the glucoside. Boiling and digesting the root destroys its cathartic action. We would infer it was not that.

On the other hand calcium oxalate is found free in the natural root and this is purgative; roasting the root as well as boiling destroys this action. Roasting and boiling volatalizes the calcium oxalate (CaC_2O_4), setting free calcium and CO_2.

Again the best rhubarb contains a large per cent of calcium oxalate, twenty to forty per cent, and the inferior rejected grades a small per cent, from two to ten per cent. Hence, we would infer, it was calcium oxalate that was the laxative, as on destroying this it ceased to have a purgative action.

T. O. HARDESTY.

Jacksonville, Ill.

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Rhubarb is an old remedy, yet none the less a valuable one, especially useful to clear the bowels in cases where a subsequent astringent effect is desirable, as in the summer diarrheas of children. Much the same in-

dications are met by juglandin and in recent years we have used more of the latter drug, though we appreciate and often have recourse to rhubarb, usually in the form of the concentration, rhein.

We can hardly agree with Dr. Hardesty, that calcium oxalate is the main cathartic principle of rhubarb. The oxalates are very poisonous and in appreciable doses are decidedly irritant to the gastrointestinal mucous membrane, and they are never used alone as cathartics. Dragendorff attributed the purgative action to the cathartic acid contained in rhubarb; Tschirch attributed it to emodin or chrysophan, while Hesse thought it due to a chrystallizable principle, rhein. But it is probable (see Alkaloidal Therapeutics) that the gentle tonic action of this drug is due rather to the combined action of its constituents. So, for the present, we shall content ourselves with the concentration, rhein,—except when we have juglandin at hand, which pleases us even better.

We know all the readers of CLINICAL MEDICINE will join with us in thanking Dr. Hardesty for this fine paper.—ED.

ASTHMA.

It is painfully evident to every painstaking physician, that book descriptions of symptoms and diseases are totally inadequate to convey the real state of affairs, as felt by the patient and seen at the bedside. We can only know the sufferings and appreciate the condition of the patient when we have borne what he is bearing and experience what he is experiencing; in other words, we must have had the same malady.

Having suffered with asthma for twenty years, I think I am thoroughly competent to speak understandingly on the subject. In my own case during the winter season the trouble freshens up or exacerbates. This year was no exception to the general rule. During the first days of December the malady came on and I began to cast about for a remedy. Morphine hypodermics heretofore had been our hope of relief, but unaccountably, lately they have failed to accomplish anything, not that the system has become inured to the use of the drug, for we have never employed it over a dozen times a year. Not only this but the addition of atropine has not yielded any better results.

Somewhere in my reading I happened on the suggestion of the use of adrenalin in asthmatic seizures. One night, while almost choking for want of breath, I said to my wife: "I will experiment with this adrenalin. I have only read of its use, I have no practical experience; it can't make matters much worse." So the hypodermic syringe was loaded with 1-1000 solution of adrenalin chloride without adulteration or admixture, and the dose injected into the arm; it looked like a very small quantity, indeed, but I was not long in getting a little experience which was interesting, varied and tremendous, while instantaneous and highly gratifying in completely relieving every urgent symptom. I said to my wife: "Did you see that?" She said, "I think I did. That was surely a miracle, wasn't it?"

The effects of this drug are worthy of more extended study and having had much personal experience in its physiological action I feel like taking the matter up.

Since the first day of December, 1905, I have had four attacks of asthma, more or less severe, but in each case I have greatly moderated them; even almost, if not quite, feel like saying, aborted them. From being confined to bed for three or four weeks I have cut their severity down until I have not had to take to the bed at all and have maintained a good appetite throughout, recovering with little loss of flesh and strength. In fact, I have weighed more this winter than I have ever in life before. Let me copy from a little note-book which I always carry for noting medical facts:

When adrenalin chloride solution is used hypodermically its effects are sometimes instantaneous. This was so in my first use of it, yet at other times it took ten or fifteen minutes for it to show up physiologically.

My asthmatic seizures are frequently accompanied by acute bronchitis and it was so at this period. I injected the solution

in my arm, which instantaneously abated perfectly and totally the intense asthmatic symptom, as well as the bronchitic cough, which attended them.

Now I noticed these physiological effects: At first there was marked acceleration, then slowing with increased tension and volume of the pulse and throbbing and palpitation of the heart, which at times was very disagreeable, but could be relieved by lying on the left side. The respiration was greatly accelerated, to perhaps as many as fifty or sixty to the minute. This was the first effect noted and was the beginning of relief. There appeared to be more room in the lungs for it than could be filled and nature was working for dear life to fill it. As I expressed it I felt hollow to the very end of the toes.

The respiration was labored (troublesome), but not dyspneic, and by way of contrast was perfectly comfortable. I said to my wife: "This is an experiment and may kill me, but I am perfectly relieved and this relief is worth risking death for."

The drug seems to spend its force on the pneumogastric as evidenced by its effects upon the lungs and heart. There is produced the slightest suspicion of nausea, but it is of short duration and need not be mentioned. There is a very noticeable and unpleasant trembling of the limbs produced by it which looks like paralysis agitans. I say "looks;" I do not know how the paralytic feels.

The pain produced by the hypodermic injection is about like that produced by morphine with the exception that it lasts longer. I have had it give pain on pressure (the point of injection) for ten days after it was made. The injection had better be made in the thigh, as I found it gave more pain when made in the arm; but my arms are not very fleshy.

I have employed this drug more than twenty-five times personally as well as in others, and in the aged. I am more than 50 years old and I have not seen an untoward symptom. In fact, it appears to work me harder and get up more physiological symptoms in my case than any other in which I have used it. I have had no sloughing or abscess formation, while some doctors caution against this. The sedative and antispasmodic effects last about three or four hours from the use of the drug. The relief is perfect, calm and delightful. There is no increase of dose or drug habit.

I have noticed a little fulness of the head and vertigo. The face blanches. My wife has often remarked: "It makes you look so pale." Nitroglycerin, before taking, lessens the capillary constriction and decreases the cardiac and vascular excitation, yet relaxation and respiration are favorably influenced. Occasionally the spasms may be too strong for the powers of adrenalin when a granule of glonoin will come to its assistance and untie the Gordian knot. It is of no effect administered by the stomach. Given hypodermically it cuts short the attack in from two to twenty minutes.

The dose must be large enough (five to ten minims) found by trial to cause prompt, general vasoconstriction.

It is our most efficient drug in relieving the attack but not curative, nor prophylactic. The dose must be such as to produce full physiologic effect. When this amount is found it may be given in full on return of the attack.

The physiological effects are: (a) decrease of dyspnea; (b) increase of pulse tension; (c) coughing up of mucus; (d) if the treatment is successful there appears a strong tremor all over the body, which may effect the tongue; (e) there is sometimes numbness and pain over the heart; (f) there is no local gangrene.

M. G. Price.

Mosheim, Tenn.

SPOONS AND SPOONFULS.

What do they measure medicinally? We hear of the tablespoon, the dessertspoon and the teaspoon, and we used to believe that a teaspoon held a dram, the dessertspoon two drams and the tablespoon four drams—but we don't believe it now! We find that all these vary greatly in content, though they are still in general use for the

measurement of doses of medicine. The above question is therefore pertinent and its answer we find best given in the twenty-first and last edition of Littré's *Dictionnaire de Medicine*, now edited by A. Gilbert. We translate it here, *pro bono publico*, as, to our surprise, we do not find the question even alluded to in two of our best English medical dictionaries, Stedman and Dunglison, and Dorland.

"Spoonful.—The quantity which a spoon contains and by which medicinal doses of liquids are measured. [The fact that in solid medicaments we always qualify "spoon" by saying "heaped" or "even" shows that the measurement is even less approximate than in liquids.—Translator.]

"A teaspoonful (*cuilleree a cafè*, French) is equivalent to five drams (75 grains) of ordinary water, or more exactly to four grams (60 grains) of aqueous liquids and wines, to three grams (45 grains) of alcoholic liquids at 40°F, to four grams and a half of potions (draughts), to five grams of syrup, and to three grams of oils.

"A dessertspoonful (*cuilleree a dessert* or *a entrements*) equal twelve grams (3 drams) of aqueous liquids and wines, nine grams (2.25 drams) of alcoholic liquids at 140°F and oils, thirteen and a half grams (3.47 drams) of potions and sixteen grams (4 drams) of syrups.

"A tablespoonful (*cuilleree a soupe* or *a bouche*) equals sixteen grams (4 drams) of aqueous liquids and wines, twelve grams (3 drams) of alcoholic liquids at 140°F and oils, eighteen grams (45 drams) of potions and twenty to twenty-one (5 to 5.25 drams) of syrups."

E. M. Epstein.

Chicago, Ill.

CHLOROSIS.

Chlorosis is frequently associated with marked accumulation of fat. Such patients must be made to take a great deal of outdoor exercise: horse-back or bicycle riding, walking, etc., in spite of their violent opposition. Sluggish kidneys must be stimulated by an increase of fluids to two full quarts daily (milk, water and other liquids being all counted). Inactive bowels must be aroused by salines, if dependent upon deficient secretions; if due to muscular feebleness of the gut, Waugh's anti-constipation pill will be found much better. Iodide of iron must be given in full doses. Arsenic is indicated if examination of the blood shows deficiency in number of red-cells, as is usually the case. In weak patients, not fat, general massage is often of great benefit. Change of scene and occupation often do more than medicine. Over-study must particularly be stopped; the girl being taken from school a year if necessary.

SYPHILIS IN CHILDREN.

In country practice as well as in city work syphilis of early childhood is often unrecognized; and especially is luetic disease of bone miscalled "rheumatism." This trouble almost always begins as a periosteal thickening with some tenderness; rarely with a little fever. It affects the heads of the long bones first, as a rule, but sometimes also the shafts; as the thickening around the bones increases the soft tissues gradually become infiltrated—the exudation of deposit extending toward the surface until the implicated part of the limb appears much swollen, the skin finally assuming a tense, shining and slightly reddened appearance, with much pain and decided tenderness.

A diagnosis of tuberculosis should not be made—there is absence of the characteristic spindle-shape; nor should it be mistaken for rheumatism—there is but little impairment of joint-function save that due to the swelling; the presence of Hutchinson teeth or of iritis makes recognition sure. In these cases iodides are of more value than mercury; they should be given to the limit of tolerance. A child of two years will often take two grams (30 grains) of iodide of sodium three times a day. Better still is calx iodata in most cases, though small doses of iodoform or mercury protoiodide may be used.

AMONG THE BOOKS

BRYANT AND BUCK'S "AMERICAN PRACTICE OF SURGERY."

American Practice of Surgery, a Complete System of the Science and Art of Surgery, by representative surgeons of the United States and Canada. Editors, Joseph D. Bryant, M. D., and Albert H. Buck, M. D., of New York City. Complete in eight volumes, profusely illustrated. Vol. One. Publishers William Wood & Co., New York, 1906, $7.00.

This first volume of 797 pages of 10½ by 7 inches, and an index of 21 pages shows the vastness of the scale on which the editors and publishers propose to carry out this undertaking. And if each of the volumes to follow shall equal this one, in quantity and quality there will be a temptation to say with Ambroise Paré, that "there is nothing left for posterity to add." But if the writer of these lines lives to review the eighth volume he promises that he will not yield to the temptation! There is much, very much, to admire in this volume, and we know of nothing to find fault with in it. The language everywhere is plain, easily understood English, the diction chaste, appropriate and in places elevated and elevating. The Introductory History, to which 67 pages are given, is full of interest. The articles on the Process of Repair, on Tumors, and Infection, are master-testimonies to the grand and beneficial progress we in America have made up to this time.

We can serve our readers best by giving them an abbreviation of the Table of Contents:

After the Introduction there comes Part I. consisting of Surgical Pathology, Inflammation, Disturbances of Nutrition in Surgical Disease, Repair, Tumors, Parasitical Relations of Cancer. Part II. Complications and Sequelæ, Infection in Surgical Diseases and Conditions, Surgical Shock. Part III. Surgical Diagnosis, Diagnostic Value of Body Fluids in Surgical Diseases, Epiphyses and their Radiographic Interpretation, Radiography in Surgery. Part IV. General Surgical Treatment; Various Procedures, Instruments, etc., in their application. Part V. General Prognosis in Surgical Diseases and Conditions.

The illustrations are some of them borrowed, but in the way of the bee's borrowing nectar for its honey, which is better than the spider's original cobweb. But many illustrations are original from the authors' own, and American and Canadian hospital collections.

DUBOIS'S "INFLUENCE OF MIND ON BODY."

The Influence of the Mind on the Body. By Dr. Paul Dubois, of the University of Berne, Switzerland. Translated from the fifth French edition by L. B. Gallatin. Published by Funk & Wagnalls Company, New York and London, 1906, 50 cents.

On October 16, 1905, we wrote a highly recommending review of "The Psychic Treatment of Nervous Disorders," by the same author. Our disastrous fire on November 9, of the same year, destroyed that review and we did not know it until now when we looked for it in our book reviews and did not find it. We may now absolve our duty by speaking of both books at once. The last-mentioned book is one of 466 pages and is very analytic and yet very practical. Publishers the same, $3.00.

They are instructive for physicians who have not made psychology and psychiatry their special studies. It is vain to treat nervous diseases on purely materialistic

principles, and as vain it is to treat them psychologically without at least a fair knowledge of psychology as now understood. The books before us are a great help in this respect, not that we agree with the author on all the points he makes, but his books are of use just on this account, for you will have to think before you agree with or disagree from the author. Some books are like grindstones, good to sharpen your wits on just because you disagree from them.

PARKER'S "HUMAN SEXUALITY."

Human Sexuality, A Medico-Literary Treatise on the Laws, Anamolies and Relations of Sex, with Especial Reference to Contrary Sexual Desire, By J. Richardson Parker, Sc. B., Ph. G., M. D. Publishers, Professional Publishing Company, Philadelphia, 1906, $3.00.

It is not always clear from what motives a book on the variously painful questions of Human Sexuality is written. This author seems to indicate his motive by one of three mottos on the title page, the one from Spinoza which says: "I have sedulously endeavored neither to ridicule, nor to bemoan, nor to despise, but to understand human actions."

In a country like ours which has inherited the civilization of the ages with all its virtues and vices, its truths and its errors, it is not strange to find there the two opposite poles of the sexual problems of humanity, Shakerism and Mormonism, Agamy and Polygamy. And between these two opposite sexual poles there is not, like in the magnetic between, the equilibrium of balanced forces producing a satisfactory tension of healthful tonicity. Instead of this there has always been, and is more now than ever, a constant seething and bubbling and growling and bursting underneath the thin layer of our civilization, covering but not concealing the conflicts going on deeper in the hygienic, social, and ethic interests of our sexual life. Wilful ignorance is yet triumphing over a better and outraged knowledge, and stupid arbitrary dictations are yet forced upon us where dictation on healthy men and women is impossible, whose regeneration has either never yet begun, or is only yet in process. Meantime the ephemeral modern press, this modern representative of the false and true prophets of old, drags out from beneath its daily sexual abominations into the sight of our young sons and daughters for whose purity we labor and live and pray and try to faint not.

Before order and truth should triumph over disorder and falsehood, knowledge is needed in the thinking part of our people of which part the members of the medical profession is a considerable part. And to them we recommend the study of the book before us, which treats in a scientific yet sympathetic spirit the following subjects: Moral and Social Aspects of the Sexual Relation, Sexual Selection of the Law of Choice, Betrothal, Marriage, Divorce, Fecundation, Abortion, Infanticide, The Law of Sexual Desire, Inversion of the Sexual Impulse, Artificial Eroticism, and The Sexual Criminal.

No part of human life shows more conclusively than the sexual that it is a pathology. And no therapy will ever be successful except one that is based on an ideal though not attainable physiology in the present stage of human development.

ELLINGWOOD'S "TREATMENT OF DISEASE."

A Manual of the Eclectic Treatment of Disease. By Finley Ellingwood. Vol. I. Published by the Chicago Medical Times Pub. Co., 1906. Price, Cloth $3.00, half morocco, $3.50

We have examined this book with unusual interest. While we of the regulars have been delving into pathology and the indirect methods of treating disease, the eclectics have especially studied disease from the bedside. Their quest has been for trustworthy methods and means of relieving suffering and postponing death. Ours has been to ascertain the meaning of abnormal manifestations, to place our finger on the point of departure from the right, and seek out its causes. If either

school is to point the finger of scorn at the other for neglecting the one department of study for the other—which is it?

Turning to this book, we find that it is arranged as a text-book on Practice. There is a brief but pretty good epitome of the pathology, in line with the texts of the regular school. The author has tried with fair success to keep up with the work done by us, and we note that he has not neglected such comparatively recent discoveries as the cytorrhyctes vacciniæ and the transmission of plague by rat fleas.

We are, however, specially interested in the treatment. Here we are at once impressed with the wide differences between this and that of the regular school, not so much in the choice of remedies as in the mode of handling the subject. At first sight the treatment seems vague and uncertain. We find no specifics, not even remedies for specific diseases, but instead a large number of remedies mentioned for each malady, very similar as to those advised for fevers, but no precision in choosing or in administering them. Evidently there is something else that must go too—a key to the puzzle. Our own studies in exact therapy have furnished this, and we recognize it in the application of remedies to conditions and not to diseases as entities. Here we see a difference that is radical—the point of attack is not the same, the basis of therapy is changed. The ideal of a large majority of our men is a formula containing several remedies, which is to be employed against such a disease as typhoid fever, for instance; that of the eclectic is a series of remedies each of which has been found effective when directed against a certain symptom group, as presented in any malady whatever.

This may be illustrated by some extracts from his treatment of scarlatina. Aconite is usually indicated by the hard, wiry pulse, sharp, staccato-like and unusually rapid, from 140 to 170. Congestion of the skin, and later of various organs, indicates belladonna. If the skin is very dry, jaborandi. Rhus tox, for dark-red or livid skin, buccal mucosa red, tongue red and glazed or narrow, pointed and dark, with brown coat and other evidences of typhoid, offensive breath, offensive discharges and rapidly failing vitality. Injected conjunctivæ, swelling palpebræ, extreme lacrymation and photophobia also call for rhus. Baptisia meets these indications also, especially in scarlatina maligna. For great nervous irritation, gelsemium; but if there is also depression and feeble heart-action, belladonna; for dropsy apocynum, for extreme heart failure adding cactus, digitalis or strychnine, as the indications point to one or the other. He does not suggest mixing the three.

Nothing is said of how much of either is to be given, nor at what stage each is to be chosen. The reader must turn to the works on materia medica for precise indications, and for directions as to the dosage. We will turn to Ellingwood's Therapeutics and look at the notes on gelsemium:

These tell us that "the indications for this agent are fever, with a high degree of nervous tension, great nervous irritation, exhibited by bright eyes, usually with contracted pupils, though in some cases the pupils are widely dilated. The face is flushed, there is restlessness, usually with increased temperature, with sharp, quick pulse, all evidences of acute determination of the blood to the brain or central nervous system." Felter and Lloyd give these specific indications: "Gelsemium is indicated by bright eyes, contracted pupils, flushed face, great heat, and restlessness; mental irritability; insomnia, with excitation; pain over the whole head; dysuria with scanty secretion of urine; irritation of the urinary tract; pinched contracted tissues; thin, dry, unyielding os uteri, with dry vaginal walls; arterial throbbing and exalted sensibility; chilly sensations upon motion; hyperemia; and convulsions."

Accordingly we find gelsemium advocated in all febrile maladies in which such an assemblage of symptoms may occur. So with the other remedies—in the index of the Therapeutics fifteen remedies are mentioned under the head of scarlet fever, and

this does not include all that are suggested in the Practice.

Throughout the section of infections we find echinacea constantly named, and it is evident that this singular drug is relied upon as a remedy for septic conditions as occurring in any disease.

How does this compare with the teachings arrived at by the advocates of the active-principle therapy? It has been claimed that the latter is simply the eclectic method, stolen and utilized without credit. This is, however, only a superficial and totally incorrect diagnosis. The user of definitely acting agents begins with the known action of his drug, and from that deduces its clinical applications; while the eclectic begins with its clinical effects and from them assumes the pathology and the physiologic action of the drug. We commence by laying aside the crude gelsemium, which contains two antagonistic alkaloids in varying proportions, and take that on which the peculiar value of the drug depends, gelseminine. We find that this agent depresses the cerebral centers, the respiratory center, the motor nerves, reflex irritability; dilates the pupil, slows the pulse, lowers temperature, relaxes vascular pressure, etc. From these data we seek to deduce the therapeutic applications of the drug. While we thus make our attack from different points it is obvious that we must meet if our work is correct. Many of the eclectic indications have proved to be well founded when tried by our system. Many have been explained thereby. Our own work supplies the most radical defect in their system, that of its incompleteness. It is obvious that only a very small portion of the infinite number of possible pathologic symptom-complexes can be studied and fitted with the appropriate remedies from the clinical standpoint, working from an enormous circumference toward the center. As with the homeopathists, we are constantly meeting conditions for which no remedy has as yet been accurately applied, and in rare cases the wide experimenting necessitated can not be obtained. We therefore find these gentlemen adepts in the treatment of the most commonly observed conditions of disease, and utterly at sea with rarer ones.

This difficulty is exactly met by the active-principle method. Beginning with appreciation of the effects of our remedies upon the organs and functions of the living human body, we are ready to apply these remedies whenever we note any one or more of these functions to be unduly depressed or excited. As far as the study of our drugs has gone, we are prepared to cope with every aberration from normality that may present itself, even if we meet it for the first time, and it has never previously been recognized and put on record. We work from the center to the circumference, and this makes the task an easy one.

This is not more a review of Ellingwood's book than it is a vindication of the school in which he has worked. It would be unjust to him were we to omit saying that much of the detail concerning the physiologic action of drugs is found in his books—in fact his summary of gelsemium indications above quoted shows this. His Practice and Therapeutics to be utilized must be studied together.

KEEN'S "SYSTEM OF SURGERY."

Surgery, Its Principles and Practice, by various authors, edited by W. W. Keen, M. D., LL. D., Jefferson Medical College, Philadelphia. Volume I, with 261 text-illustrations and seventeen colored plates. Philadelphia and London. W. B. Saunders Company, 1906. $7.00, cloth.

This highly important work on the ever progressive science and art of surgery is to comprise five large octavo volumes of 800 pages each, with 1500 illustrations and 50 colored plates.

Surgery has long ceased to be mere bold heroic operating on the outside and the inside of the human body. The demand for scientific investigation into the minute processes of surgical disease and repair has to be satisfied, and not merely as theoretical discipline but as practically applied at the bedside and on the operating table. The modern surgeon is not a

butcher, not merely a topical anatomist, but with these a thorough biologist, a keen pathologist, and a conservative surgical therapist where surgery is the only therapy that promises any good. The various eminent contributors to this volume write in this sense of modern demand on surgical practice. The eminent editor's renown is a good share of guaranty that the work will be satisfactory and complete.

The twenty-two chapters of this first volume treat of the following subjects: Narrative of Surgery, a Historical Sketch; Surgical Physiology; Examination of the Blood; Infection and Immunity; Inflammation; Suppuration, Abscess and Fistula; Ulceration and Ulcers; Mortification and Gangrene; Process of Repair; Thrombosis and Embolism; Erysipelas; Tetanus or Lock-Jaw; Diseases Caused by Special Infections; Diseases derived from Animals, Insects, and Reptiles; The Traumatic Fevers; Scurvy and Rickets; Tuberculosis; Contusion and Wounds; Chancroid; Syphilis; Tumors.

EMERSON'S "CLINICAL DIAGNOSIS."

Clinical Diagnosis. A Text-Book of Clinical Microscopy and Clinical Chemistry. By Charles Phillips Emerson, A. B., M. D., of Johns Hopkins University and Hospital. J. B. Lippincott Co., Philadelphia and London. 1906. $5.00.

The book is preeminently a student's book, but not necessarily of one at school, but of one who always learns and studies, always coming nearer to a knowledge of the truth. Such an one will have many good books of more or less recent date on the subject, but when he gets this one he will pore over it and be glad. And withal the book is very practical and its author is to be thanked for founding an exclusive laboratory for the diagnostician, and is rather first a bedside diagnostician and a chemist and microscopist next, but he has the last two diagnostic helps at his fingers' ends.

It is astonishing what an amount of researching labor the modern practical scientific physician spends on diagnosis, and though sometimes his gain is incommensurate with his labors, they shall not be in vain, if he does not forget to communicate them to his fellow laborers. Many a grateful encomium one could write on this book by Dr. Emerson, but let me only say in conclusion, that it is a good scientific, practical, honest book.

BISHOP'S "DISEASES OF THE EAR."

The Ear and its Diseases, a text-book for physicians and students by Prof. Seth Scott Bishop, B. S., M. D., LL. D. Illustrated with twenty-seven colored lithographs and two hundred additional illustrations. F. A. Davis Co., Philadelphia, 1906. $4.00.

It is a grateful thing that Prof. Bishop yielded at last to the solicitous suggestion by many of the profession to write a separate book on the diseases of the ear, as a third part to his universally accepted book on the Nose and Throat. The outcome is a magnificent book, scientific, practical, and useful, and in many points original.

The author fairly lived himself into this study of the ear, and its compact anatomy and subtle physiology and complicated disorders are large objects and plain conditions among which he walks and works with the commanding skill of the master. And no wonder, when in addition to an evident natural aptitude he can speak of 21,000 cases of the diseases of the ear treated by him! Fine!

THE PRACTICAL MEDICINE SERIES.

The Practical Medicine Series on the Year's Progress now gives us Volumes IV, V, and VI, viz., Gynecology by Dr. E. C. Dudley and C. von Bachelle. This volume as usual in this excellent series of year books states the progress in succinct, terse, yet clear language, fully sufficient to be useful in the physician's every day-practice.

Vol. V, Obstetrics, by Drs. J. B. De Lee, D. Bochler and A. M. Stowe. They report the progress of the year in the studies of

Pregnancy, Labor, Puerperium, and in the care and treatment of the new born. We miss in the section on labor any report on the wonderful narco-anesthetic effects of scopolamine (hyoscine) and morphine.

Vol. VI. is another (second) volume on General Medicine by the same authors (Drs. Billings and Salisbury) as of Vol. I, 1906. These two volumes give a very sufficient account of the progress made during the year. In the October CLINIC we gave what we thought to be the scope of these volumes, and to this we call the attention of our readers now.

"INTERNATIONAL MEDICAL ANNUAL."

We regret the oversight which prevented our due review of The International Medical Annual, a Year Book of Treatment, and Practitioner's Index for 1905. Publishers E. B. Treat & Co., New York, 1906, $3.00.

However, this annual is never a back number and he who gets it at any time gets a book of varied usefulness for all times. And this may be said of everyone of these annuals since 1889. We considered our large library greatly increased in its working usefulness when we were able to procure the seventeen volumes and the index to them. The plan of this annual makes it a really ready reference book for the latest and best in therapeutics, remedies and treatment, and subjects connected with these great departments of medicine, surgery and sanitation. We do not know of any reference book so full and useful as this one of 564 closely but clearly printed pages, so well illustrated, some stereoscopically, to be had for the price of but three dollars.

TRI-STATE TRANSACTIONS.

Transactions of the Tri-State Medical Society of Iowa, Illinois and Missouri, at Hannibal, Mo., April 2nd and 3rd, 1903 came to us at this late date, but better late than never.

It frequently is the case that at such gatherings most valuable papers are read which deserve keeping and referring to on occasions needed. Were time and space allowed it would be a pleasure to review the papers in this report, but as it is we can only give the titles: (1) Formaldehyde Disinfection; Mastoid Disease; Painful Menstruation; Pistol-Shot in Neck; Laminectomy with Recovery; Wounds from Modern Agricultural Implements; Address of Welcome, A Case of Atresia Uteri; Influenza, Extrauterine Gestation, three cases; President's Address, containing topics on Human Desire, Race Conservation, Hystero-Salpingostomy; Torsion of the Testicle; Resection of Chest Wall for recurrent Carcinoma of Breast; Renal Diseases, Etiology and Pathology; Specimens of Prostatic Hypertrophy, over two hundred cases.

BUCHANAN'S "ANATOMY."

Manual of Anatomy, Systematic and Practical, including Embryology, by A. M. Buchanan, M. A., M. D., Professor of Anatomy in Anderson College, Glasgow. Vol. I. Osteology; Upper Limb; Lower Limb. Chicago, W. T. Keener & Co., 1906, $2.75.

The author is wholly original and has designed his book to serve both for a book of study as well as an effective guide in the dissecting room. His idea of giving the embryonic history of every organ and parts of it along with the adult conditions of it is a very good one, since some diseases of such parts are elucidated by reference to their embryonic state. The author is also kindly mindful in his book of the needs of the student and his examinations.

"OPERATIVE GYNECOLOGY."

A Compend of Operative Gynecology. By Drs. W. L. Bainbridge and H. D. Meeker, Professors at the New York Postgraduate Medical School and Hospital. Publishers, The Grafton Press, 1906, New York, $1.00. Although based on the lectures of the authors at their school the little book must prove useful to students of any school and as a quick refreshing of memory to any practising physician.

CONDENSED QUERIES ANSWERED

PLEASE NOTE.

While the editors make replies to these queries as they are able, they are very far from wishing to monopolize the stage and would be pleased to hear from any reader who can furnish further and better information. Moreover, we would urge those seeking advice to report the results, whether good or bad. In all cases please give the number of the query when writing anything concerning it. Positively no attention paid to anonymous letters.

QUERIES.

QUERY 5147:—"Whisky and Lemon Juice." I am a firm believer in accurate medication as expounded in the editorials of your journal, and that will of necessity lead to the more or less general use of the alkaloids; in fact, use them wherever they can be isolated, in preference to the crude drug.

I find it exceedingly convenient to have a collection of the granules with me when I am called far out into the country when the first aid rendered may be the means of saving the patient. The saying that "speedy help is double help" applies here, as, with a full assortment with granules one always has a complete drugstore along in miniature form thus, adding to the confidence of the doctor and to the comfort of the patient.

I want to ask the editor if he or the "family" knows if there is anything in the use of whisky and lemon for rheumatism. A merchant in my town, inclined to be obese, who has had recurrent attacks of acute inflammatory rheumatism, was advised by a competent physician (health offier in one of the larger cities in our State) to take a drink of whisky with the juice of one lemon in it before breakfast every morning.

What's the philosophy of it, if any?

A. C. P., Minnesota.

Thank you, Doctor!

The profession at large is gradually recognizing the fact that intestinal cleanliness, close diagnosis and prompt, positive medication, are all important.

Whisky and lemon in rheumatism is not new to us. The lemon is all right, but the whisky can very well be omitted. The idea of the whisky before breakfast unquestionably is to stimulate metabolism generally, but if the physician who recommended it could see the interior of the stomach after it had been douched with alcohol in the early morning he would hardly repeat his prescription. Cactin and strychnine are preferable. Lemon juice we know to be of service in rheumatic conditions. The effect is really that of an alkali. Try giving the juice of a lemon with a glass of hot water an hour before meals, and add a small teaspoonful of sulphate magnesia and we think you will get satisfactory results.—ED.

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QUERY 5148:—"Hyoscine Anesthesia." Dr. H. tried tablets of hyoscine, morphine and cactin compound on three cases; one where he wished to perform an operation on the urethra; but the patient's limbs became as rigid as sticks and the operation had to be abandoned. The patient's respiration went down very low, and he became very blue in the face.

Second operation: A skater at the rink slipped and came down on his hips and the end of his spine. This patient was in terrible pain and the doctor thought these tablets would do better than the ordinary morphine injection. The tablet made the patient so blue in the face, and respiration went down so low that the nurse at the hospital was alarmed, and did not give a second tablet as was directed to do by the doctor if, after a certain time, the patient did not become quiet. The doctor claims that the tablet did not seem

to relieve the pain as plain morphine would have done.

The third case was an alcoholic pneumonia on the verge of tremens, and the doctor thought the injection of one or two of these tablets would control the patient. He claims it made him worse at first, and then the same symptoms as in the other cases, of decreased respiration and blueness of skin.

In regard to the last case, I was talking with another physician of Sacramento, who said he had used it in consultation on an alcoholic pneumonia and said it acted nicely. The patient got from it a nice night's sleep, and in the morning there was nothing but the pneumonia case to attend to.

P., California.

For an operation on the urethra two doses should be given; the first three hours before operation and the second one and a half before; at time of operation a little cocaine may be used, injected, or twenty or thirty drops of chloroform used. There will then be no muscular rigidity. For a prostatectomy a third dose must be given just before operation; then no other anesthetic will be needed. Low respiration is to be expected—if it does not go below six or eight per minute no anxiety need be felt; if it does the patient may be aroused every few minutes until he does breathe better. If the patient be turned upon the side cyanosis will disappear very rapidly. In the second case the patient may have been one of those peculiar (and rare) cases in which morphine does not quiet pain. In one of my operations a boy of fourteen years had three full doses of the new anesthetic, yet was absolutely unaffected by it and had to have three full bottles of chloroform before he was asleep sufficiently to permit a ten-minute operation —removal of the superior maxilla. The probabilities are that if Dr. H.'s patient had been turned upon his side and a second dose given he would have been all right; we are too prone to make patients sleep upon their backs, when ill, who would snort and strangle and get blue if they tried to sleep upon their backs in health. In the third case; I don't know—it's "out of my line." But I find in operating upon alcoholics that it (as in his case) at first excites but soon quiets them and operation can then be done, generally with only two doses if the patient has been drinking heavily. But I am afraid of such patients—any anesthetic is dangerous. In a number of cases I have given a full dose of apomorphine and, as soon as emesis is over, injected the anesthetic, and the results have been prompt and satisfactory. But for alcoholism, chloral and bromides (2 grams each), by rectum, give such beautiful quietude that I should hesitate to give morphine in any form except for operative work.—E. L.

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Query 5149:—"A Safe Local Anesthetic and Reliable Diuretic." I would like to find a safe and reliable local anesthetic; also safe and reliable emetic, diuretic and diaphoretic. What at present is your best remedy for gallstones, both for relieving an attack of the colic and for preventing formation of stones?

W. H., Iowa.

Ethyl chloride as a freezing agent is a safe and reliable local anesthetic. Another is a mixture of equal parts of cocaine and brucine, one per cent of each in water. Most of the difficulty with cocaine seems to be due to the use of too strong solutions.

Apomorphine is the best emetic if given hypodermatically; by the stomach it is not emetic, but emetine leaves nothing to desire, if given in grain doses in warm water. Two conditions require diuretics—the feeble pressure in the renal arteries may demand vascular tensors like apocynin or any other of the heart tonics, or too great tension, such as is exerted by digitoxin, may so constringe these vessels as to prevent entirely the escape of urine. In the latter case we must relax tension with veratrine, aconitine or digitonin, the former filling the need best. Volatile oils in very small doses stimulate the dialyzing membrane of the Malpighian bodies but in larger doses cause hyperemia that may completely stop secretion; while if long continued they induce a passive congestion with hyperplasia of the connective tissue that is fatal

in time. Water taken beyond the needs of the body must be excreted somewhere, and if the skin is kept cool will largely pass out through the kidneys, and this fact has given many articles an undeserved repute as diuretics. If the skin is kept warm the water tends to escape in perspiration, but the great diaphoretic is pilocarpine, in doses of gr. 1-6 hypodermatically. Sometimes it causes salivation instead of sweating, and here muscarine may prove preferable, in similar doses. If you wish to increase the solid renal excretion boldine is the remedy to increase the formation and excretion of urea, colchicine of uric acid.

For gallstones we advise glonoin and hyoscyamine, aa gr. 1-250, and strychnine valerianate gr. 1-134, every ten minutes till relief or the mouth dries. Dioscorein gr. 1-6 to 1-2 every ten minutes in hot water is also very speedily effective. For use to prevent paroxysms give sodium succinate gr. 5, and boldine gr. 1-12, four times a day for a year. How it acts we do not know, but the paroxysms become milder and scarcer until within the year they cease. Probably the action is a disinfectant or germicidal one on the biliary passages, the infection gradually being extinguished; or the bile acquires solvent properties—anyhow the patient gets well under these remedies.—Ed.

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Query 5150:—"Removal of Tattoo Marks." Could you give me some receipts for removing tattoo marks?

O. H., Indiana.

Success often depends upon the depth of marking, age of tattooing and pigments used. Some of the blue and scarlet marks frequently found upon sailors (tattooing done abroad) cannot be removed without too free removal of cuticle.

Variot of Paris proceeds as follows: "Apply under antiseptic precautions a concentrated solution of tannin to the skin and work it in as in tattoo operation. Then rub skin with pencil (or solution) of silver nitrate until the tatoo marks stand out as black points on the silver tannate. Excessive fluid should be removed; the surface turns black and moderate inflammation follows. In fourteen days the eschar drops off, leaving a red superficial cicatrix which fades in seven or eight weeks." This plan is safe and *sure*—but painful and tedious. Ordinary slight tattoo marks (powder marks etc.) may often be removed by pricking in H_2O_2. Under ethyl chloride anesthesia (local) go over the area affected with a bunch of fine cambric needles tied with silk and dipped in glycerole of papoid. To make the latter take papoid, gr. 1; aqua dist. dr. 1; glycerin dr. 3; ac. hydrochloric dil., gtt. 3. Mix. This is also successful. After thoroughly puncturing the tattooed area wipe off the blood and apply the fluid on gauze and bandage. Repeat process if necessary. Do a part of marked area at a time. (3) Tattoo well over mark with needles dipped in a sol. of chloride of zinc thirty parts, distilled water forty parts. Eschar drops in two weeks. Then dress area with simple cerate.

The fact that the insoluble substances which are used in tattooing become encapsulated explains the difficulty experienced in their removal. Under the microscope excised portions of tattooed tissue show large particles of pigment situated part in the corium but more generally in the subcutaneous connective tissue itself.

Carbon (charcoal, India-ink, lampblack, etc.) in some form is used for the black markings, and cinnabar, carmine, indigo or Prussian blue for the other colors. If infection occurs at time of tattooing the staining may become positively indelible without an extensive plastic operation. The use of the punch (for small marks such as may be caused by explosions of powder, etc.), sharp-pointed knife, or needle, will be of course known to you: so also will be the electric needles. Here the needle is attached to the negative pole of a battery with a current of from two to ten milliamperes and inserted at various points about the periphery of stained area till reaction is marked enough to insure destruction of involved tissue. The dry superficial eschar falls in a few days and the process may be again employed over the adjacent skin.

In all cases *strict* cleanliness during and after the operation is essential to success. Perhaps the best methods are those described first—the tannin and silver nitrate process (Variot's) and Ohmann-Dumesnil's glycerole of tannin solution. Let us know how you succeed.—Ed.

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Query 5151:—"Catgut Treatment of Hydrocele." What is the catgut treatment of hydrocele? How and in what cases used with success?

W. R. T., Illinois.

It is not often that we have to acknowledge that we do not know *anything* about a subject broached by our correspondents but we must plead ignorance here. The "catgut treatment of hydrocele" is not to be found mentioned in any of our standard works, neither is it even hinted at in recent literature or the books dealing with "The Methods of Advertising Specialists." We cannot quite understand how catgut could be of service, for it is not a good drainage material (the use of gauze being infinitely preferable) and one could hardly speak of the mere use of catgut as a ligature or suture as a "method of cure." In tapping hydrocele, catgut could not of course be used; in the radical operation catgut might be and is used for ligature and suture purposes. Further than that we do not know that this substance is of service in hydrocele. If you know of any mention of a *new* treatment we shall be pleased to be told where to find it. Is it possible you mean the closed operation for *variocele*?—Ed.

In answer to this letter the doctor writes:

"Accept my thanks for your prompt reply in regard to 'Catgut Treatment of Hydrocele.' I could find no literature on the subject and a patient of mine had been broached somewhere on the subject, the 'doctors' (?) telling him how simple it was. I acknowledged to him at the time I had never heard of such operation but would find out more if possible. Your reply put me in a better light."

W. R. T., Illinois.

We expected something of this kind. It is remarkable what absurd statements the traveling and advertising quacks will make to the patient if they think they can get at his pocket-book by doing so. We hope that this hydrocele case will come to to you for scientific treatment. Meanwhile be ready, brothers, to denounce impostures like this, and to explain what can legitimately be done. Probably the fellow simply ran a catgut ligature through the sac and left it to become infected.—Ed.

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Query 5152:—"Morphine Addiction." I have a patient who has been using morphine for one year, uses four grains in twenty-four hours. Health fairly good. If you can tell me anything to do please do so as she is anxious to be cured.

J. O. McQ., West Virginia.

We regret that it is almost impossible for us to outline distinctly a treatment for the case you mention. We treat these cases one after another here and with perfect success, but we have experienced the latter only since making it a point to treat the individual "according to the conditions present." The most essential points, however, Doctor, are these: Have your patient under your personal observation and control. Be perfectly sure that any opiate she may get comes from your hands and your hands alone. Get her confidence and make her understand that she is not going to suffer and that she can have her drug if she absolutely needs it. With this understanding patients are infinitely more tractable and do not prove so apt to get panicky. Now give your patient a bath, and a good one, in salt water, followed with an alcohol rub, and produce friction with a rough towel. Let this be about 6 o'clock in the evening. At seven, eight, nine and ten give calomel gr. 1-6, podophyllin gr. 1-6, and euonymin gr. 1-6.

Next morning upon first awakening let the patient take a double teaspoonful of saline laxative dissolved in a little water followed by a glass of hot water. You will now commence to give her her morphine, reducing the dose each time (*the patient must never know how much reduction is being made*) and push strychnine nitrate one granule, avenin three, scutellarin three and piperin one every three hours. Just before

eating give digestive No 2; after eating give papayotin, charcoal and soda 2. If your patient gets panicky at all, you may give a heavy dose of avenin with passiflora incarnata; but if you have kept up elimination and keep the skin active and give the medication already suggested and *do not let the patient know when the period of deprivation really arrives*, you will find your case coming through without any great trouble. We trust these suggestions may be of service to you.—Ed.

Query 5153:—"Spermatorrhea." Please outline what you consider the best treatment for spermatorrhea. I have a stubborn case and the patient is generally run down. Last spring he had albuminuria and two years ago was operated for varicocele. Please help me out.

B. A. M., Iowa.

Do not assume that the case is spermatorrhea until verified by the microscope—this malady is rare. Cure the prostatic irritability by daily instillations of euarol for a month, restore the tone by the use of berberine or cornin, of the latter ten grains a day, also for a month, and subdue erethism by giving five to ten grains of cypripeden daily. Examine the parts carefully and the rectum also, for there may be local affections there to cause irritation. Keep the bowels clear with a morning dose of saline, and forbid excessive eating and especially of strong foods out of proportion to the physical exercise taken. The moral treatment is important.—Ed.

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Query 5154:—"Treatment of Emissions." How would you combine the dosage of strychnine and phosphorus, camphor monobromide and the triple arsenates with nuclein in a case of nervous debility? Patient has frequent "emissions" which seem to distress him. How would two granules of strychnine and phosphorus comp. and two of triple arsenates with nuclein after meals with three of camphor monobromide (gr. 1-6) at bedtime do? Please suggest management of dosage.

B. A. M., Iowa.

Begin by curing prostatic urethral irritability by instilling a few drops of euarol daily by mouth. Strychnine and phosphorus compound (one to two) should be given about one hour before meals, nuclein (eight to twelve drops) may well be given at the same time. The triple arsenates and camphor monobromide should be given after eating, though camphor monobromide itself in small doses is most effective at two-hour intervals ($\frac{1}{6}$ to $\frac{1}{3}$ of a grain). If you want to get the full effect of nuclein give it before meals. The digestive processes really militate against its activity. Another good plan would be to give the strychnine and phosphorus between meals, nuclein before meals and the triple arsenates after eating, adding camphor monobro. (one grain) at eight and another grain at nine p. m. If you will add salicin three granules to each dose of the latter you will have even better results.—Ed.

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Query 5155:—"Syphilis?" A man had intercourse sexually, and after two or three weeks noticed a small ulcer about the size of a large dress pin-head. It was a blister, with some pus in the center, situated upon the surface of the mucous lining of the prepuce near the cord. After squeezing the contents of the blister it simply left a small sore, which was cured with calomel, bismuth and iodoform in four or five days, and the surface where the sore was left no scar or anything except a small white speck about the size of a small pin-head. From the description given do you think the ulcer was specific or non-specific? The man was so afraid that he had syphilis that he began the use of mercury at once, and his gums are very sore and teeth and throat just a little so. No other secondary symptoms have manifested themselves yet. Do you think it best to discontinue the mercury until other symptoms arise?

N., Louisana.

The chancre may appear at any time between the fifteenth and sixtieth day; induration is not invariably present in the specific sore in the early stages, in fact frequently not until the tenth or fourteenth day. The chancroid makes its appear-

ance within a few days as a rule, and is especially rapid when the delicate mucosa is infected by the chancroidal virus. In forty-eight hours frequently the condition is quite evident. It would be useless for us to here give you the well-known differential features; these can be gathered from any good work upon venereal diseases. Taylor is perhaps one of the best. However a chancroid is invariably sharply defined (punched out); a chancre however may remain level with or become slightly raised above the surrounding skin. We may, rarely, have a raised chancroid, but only when there is much edema and cell-infiltration of surrounding parts.

The lesion you describe is not typical—it certainly was not a chancroid—and while it may have been a herpetic (infected) vesicle it may also have been specific. We should strongly advise you to keep the patient under a mild antisyphilitic treatment.—Ed.

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Query 5156:—"Formula of Orange Lily Wanted." Can you give me the formula of a vaginal capsule trademarked "orange lily" and placed on the market by a Michigan firm?

E. A. C., Iowa.

We regret to say that we cannot at the present moment find any formulæ except "orange branch" and "orange blossom." Orange blossom is (of course!) claimed by its proprietors to be "a positive cure for all female diseases." It is placed on the market in the form of a suppository one inch long, half an inch wide and half an inch thick, weighing thirty-one grains, covered with tin foil; it smells "rank," and tastes astringent. It contains zinc sulphide 1 dram, alum 15 grains, cocoa butter 3 drams, white wax half a dram. oil of sweet almonds 1 1-2 drams, ext. henbane, 1 grain—or used to. "Orange branch" contains jequerity mixed up into suppositories with cocoa butter and white wax. Perhaps some of the "family" can give us some information about this other "orange" preparation. It seems that the prefix "orange" is very popular with the class who manufacture capsules and suppositories. From the nuptial orange flower to the "orange blossom" suppository may seem a far cry—and yet too often it is not.—Ed.

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Query 5157:—"Menorrhagia." Mrs. L. is suffering from menorrhagia, and I have found nothing thus far to give me satisfactory results.

J. R., South Carolina.

Two days before the next period send her to bed, raise the foot and lower the head, and sedate the uterus by giving solanine gr. 1-12 every four hours. If hemorrhage commences add hydrastinine, same doses, and keep up this till the bleeding ceases, and keep her in bed two days more. Note if the trouble is less than before, if so, treat thus each period till she is well. If she is not improved or if the hemorrhage be excessive firmly tampon the vagina and leave the plug there for a week. It may even be necessary to plug the uterus. When the bleeding has been reduced to normal for a few times it will stay there. Her blood may be abnormally fluid, and she may need calcium lactophosphate about gr. 15 daily for six weeks; or if very anemic give her iron arsenate gr. 1-67 every two hours for a month, while awake.—Ed.

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Query 5158:—"To Support Strength in Old Age." I am in my eighty-second year. Please direct me how to keep up my strength the best way. I have been taking the triple arsenates four times a day and have received some benefit from them.

R. M. E., Michigan.

Take one of the triple arsenates with nuclein after each meal and aconitine, gr. 1-134, strychnine arsenate gr. 1-67, and digitalin, gr. 1-134, on rising, at noon and at night. At least twice a week flush the bowel with a warm saline solution, say, two and a half to three quarts. At the same time eat nutritious food and fruit in small quantities every four hours, and once or twice a week sponge the entire body with a solution of Epsom salt (magnesium

sulphate one ounce, water one quart), follow with an alcohol rub and brisk friction with a rough bath towel. In this way we feel sure that you will experience a marked increase in your strength.—Ed.

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Query 5159: "Enlarged Parotid Gland." Four years ago I had mumps badly and have at present an enlarged parotid which has not returned to normal since. At times the gland becomes much swollen and very painful. Any suggestions will be gladly received.

L. S. A., California.

Phytolaccin two to three granules with calcidin one tablet three times daily will prove of service here together with arsenic iodide (gr. 1-67) after meals. Vibration over the parotid gland is also an excellent auxiliary treatment. Try carbenzol locally in unguent form.—Ed.

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Query 5160.—"Appendicitis." I want you to solve this problem for me. Miss B. R. was taken sick on Sunday at 11 a. m. while getting dinner. Had been feeling perfectly well up to that time. I saw her at 6 p. m. that evening. Pulse high and intermittent, temperature 99° F. with some severe pain in the epigastrium. Suspected appendicitis, but no tenderness over McBurney's point. I saw her next evening at 5 p. m. General peritonitis, pronounced tenderness and tremor over McBurney's point, and diagnosed case as appendicitis. Chilling and sweating indicated pus, and I decided to operate at once. Operated Tuesday morning as soon as the light was sufficient. Forty-four hours after being taken sick, the appendix perforated and partly sloughed off. Cecum and colon apparently healthy but the ileum, about three inches from the ileocecal valve, for a space of six inches was gangrenous. Many adhesions which could not be broken up. How can you account for such a state of affairs—a gangrenous appendix and a grangrenous bowel with at least six inches of healthy tissue between? She died 26 hours after the operation. I am puzzled and both my associates were at sea on the complication. Was the appendix infected from the bowel? Was the bowel infected from the appendix? If so, why was not the tissue between infected? I want light.

J. B. E., North Carolina.

That the appendicular trouble was of some standing is unquestionable, the acute stage being set up by some unknown cause. The gangrene of ileum—several inches distant—must be looked upon, we think, as the more recent condition.

It is barely possible that the intestinal lesion provided the infecting material which set up an acute appendicitis (in an already pathologic appendix), the combined processes naturally causing the peritonitis. You speak of "adhesions." Is it not altogether possible for "looping" to have occurred with a consequent shutting off of circulation in the affected area? Only a very full familiarity with the conditions existent would enable one to give a clear opinion; we all know that the most extraordinary conditions are sometimes found when we operate for appendicitis; prior inflammatory conditions may have caused the formations of bands, and tension being set up strangulation followed with involvement of an already abnormal appendix. Result exacerbation—perforation, peritonitis and death.—Ed.

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Query 5161:—"Purgative Action of Mercury Protoiodide." I am giving the antisyphilitic tablets with the 1-12 gr. protoiodide of mercury to a girl 11½ years old; they cause diarrhea. Also to a man—both take three per day and both complain of diarrhea. What would you advise in these cases? What would you give to counteract the purgative effect of the mercury? Do you consider one tablet three times a day sufficient? Both are old standing cases with very few syphilitic symptoms.

F. H. K., Canada.

Frequently this purgative action of the protoiodide is desirable, but whenever there is any gastric or intestinal irritability it is better to use the second formula, containing mercury biniodide, a more active mercurial and a valuable antiseptic; arsenic iodide, the most active iodine preparation and one that is exceedingly safe because both elements irritate the eyes, affording

a sure warning when the toxic limit is approached; iodoform which enhances the iodine action and soothes the irritation; and phytolaccin which stimulates the lymphatics to carry away the debris and leaves the other agent free to devote themselves to the disease.—Ed.

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Query 5162:—"The Dosage of Sulphocarbolates Again!" Sometime since I wrote you that I was giving the sulphocarbolates in two-grain doses every two hours and asked you if you thought my doses sufficient. You replied by advising me to give them in five-grain doses every three hours. Well and good. Today I read Dr. I. M. Heyde's paper published in your valuable journal in which he says he has repeatedly given as high as three hundred grains a day without unfavorable symptoms. Now, allowing a day to contain twenty-four hours this would mean 12 1-2 grains every hour or twenty-four grains every two hours or adopting *your* intervals between doses, 26 grains per dose! What do you think of this amount—300 grains in twenty-four hours? I shall depend very much upon what you say in this matter.

T. B. H., Louisana.

Personally I have never given more than two drams of zinc sulphocarbolate in twenty-four hours, but should not hesitate to give 300 grains if it were needed. But if the bowels are completely evacuated I have not had to exceed 40 grains per diem. Of sodium or calcium sulphocarbolate 20 grains is not a large single dose, this being advised in an earlier edition of Wood's Therapeutics. No maximum has been fixed for either of the three, when chemically pure salts are employed. When the usual doses fail, it is good evidence of the incompleteness of the bowel-emptying, as shown in a remarkable case quoted by Abbott in his address before the Tri-State Society at Galesburg, and printed in the October number of this journal.—Ed.

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Query 5163:—"Massive Doses of Quinine in Lockjaw." A man just returned from North Carolina. Met a physician there, who told him that he was called to see a man with lock-jaw, having convulsions. The doctor having nothing in hand but quinine, gave the man 100 grains, repeated in an hour, again the third hour and again the fourth hour, giving the patient 400 grains in four hours, and the patient got well. Do you believe a human being could stand 100 grains of quinine an hour for four doses?

H. M. P., South Carolina.

It is probable that this matter commenced away back before the war when a physician *did* give a negro an ounce of quinine for lockjaw, which was consumed during the day, and the negro recovered. It has been tried again with fatal results. The writer personally considers that the man's system would be so deranged if influenced by one hundred grains of quinine that it would never recover its equilibrium. Of course, you must remember, that it is altogether probable that a very small quantity of the drug is absorbed under the conditions present, and a paralytic condition would probably be set up by the first dose which would cause the subsequent ones to pass through the body almost unchanged. We certainly should not attempt to medicate in this way. Lockjaw can be handled more scientifically. We give below the opinions of two other members of our staff to whom your letter was submitted: (1) "Probably not absorbed from stomach—sulphate not taken up readily. In the South some people seem to have remarkable tolerance for the drug. I had one patient who used to take it in teaspoonful (probably fifty-grain) doses." (2)"Primarily it is a question of evidence, and before this is proven affirmatively I prefer not to express an opinion."

The cow-doctor may with perfect propriety try the large doses of quinine on some unfortunate horse bitten by a rabid dog, but we would suggest that physicians stick to echinacea and calcium sulphide, and give hyoscyamine, enough to sedate the nerve centers; early and energetic treatment of the wound, of course. Comments or experiences are asked for. There are rational modes of treating this dread disease—and this certainly is not one of them.—Ed.

QUERY 5164: "Mammary Infection." A lady, 38, weight 175, height 5 feet 4 inches, stout, in fine health, only "sour stomach" every few days. She will vomit a thick sour mass, then pure bile (so-called), yellow, then green. The breast seems full of a green fluid. I say "full" because you can squeeze the nipple and only a green fluid will pass. She is in fine health only for the sour and bitter stuff she will vomit.

R. D. B., Oregon.

For the acidity give the lady the two-grain tablets of calx iodata and tell her to take one in a little hot water every time she feels the acid rising; also regulate her bowels and her diet—you know as well as we how to do this. This may however be dependent on the infection of the mammary passages, the nature of which can be determined by examination of the pus. For this you should saturate her with calx sulphurata, flushing the affected ducts with hydrogen peroxide, introduced through a hypodermic needle with the end smoothed off. It may be wise to introduce a probe and make a counter opening.—ED.

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QUERY 5165:—"Calcium Sulphides." I use a great deal of calcium sulphide but do not get as brilliant results therefrom as Dr. Abbott does. I wonder what can be the difference between calcium sulphide (Abbott) and calcium sulphide (anybody), if both are chemically pure as is supposed.

J. J. F., New York.

If you will give small doses of calcium sulphide (gr. 1-6) every half hour or hour until the patient's breath smells strongly of sulphureted hydrogen, you must get results; provided, of course, you give the drug when indicated and institute other called-for measures. Ten thousand physicians in this country have proven the efficacy of calcium sulphide, in fact many general practicians have secured even better results than we have. Calcium sulphide (Abbott) could not of course be better than the same quality of the drug prepared as perfectly by someone else; but, as a matter of fact, we are unable to find upon the market as pure and active a calcium sulphide as Abbott's. Constant experimentation and constant disappointment at results obtained from the calcium sulphide obtained upon the open market, led him to finally perfect a product which gives better results than any other. Moreover calcium sulphide, if compressed into a tablet or pill by the usual methods, becomes hard and is not absorbed by the alimentary tract. We have often recommended that the tablet be stopped entirely and only the granule used. Disappointment never follows the exhibition of the latter.—ED.

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QUERY 5166:—"Incontinence of Urine; Senile." An old lady (sixty-eight) has a "leaky bladder" of a year or more duration. She simply cannot control voiding of urine. Will soil twenty-five or thirty cloths in twenty hours. Urine is about normal, no pain. Seems to be nothing wrong but as stated above. I have been giving her 1-5000 gr. of cantharidin for one week, with no result. Will you suggest treatment?

J. A. W., Indiana.

Give hydrastine, one granule; strychnine valerianate, one; and cantharidin, gr. 1-1000 every three hours; we would also suggest two of the dosimetric trinity morning, noon and night to improve circulatory conditions. Have you tried arbutin? Gr. 1 three times daily between meals is often speedily helpful. Push the cantharidin to full effect.—.ED.

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QUERY 5167:—"Neuralgia—or What?" Mr. P., 51 years of age, blacksmith, family and personal history good up to six years ago when he began to suffer from pain in right side at intervals, possibly of two or three weeks. Location of pain various; in region of appendix, in "pit" of stomach, all over abdomen and back, under the ribs. For years pain has persisted, attacks increasing in frequency and severity.

Never any vomiting or nausea, bowels uniformly regular, also function of kidneys normal. At times feces pale clay color; no jaundice or cachexia; good color and no emaciation. Appetite good and he is a good feeder, eating much, and drinking

coffee, tea and milk freely but never touching cold water.

Three years ago after trying fifteen or twenty doctors, had exploratory incision and examination by our first surgeon, who found nothing. Removed appendix, though healthy, but nothing else. Every organ sound. He made a poor recovery surgically; has a hernia above and to the right of umbilicus and large as a child's head. Pain, *pain*, PAIN, though with intervals of one, two or three days' remittance. Pain dull and aching, though for last two or three weeks complains of a shooting or darting, lancinating character.

I have never treated him, though have known him for years, until last two weeks. Tried electricity, cataphoresis, cocaine, aconitine and the tablets hyoscine, morphine and cactin. No results, though he went three days at one time free from pain. Then on it came again worse than its wont.

Urine, 1025 sp. gr., no albumin or sugar, no pus, etc. Tongue clean and good color.

I think he is slowly losing strength, and he says flesh, but he is well nourished. What is it and what can I do for him? Is it possible for cancer to develop so slowly and with no more evidence of its nature?

W. C. H., Minnesota.

The description you give leads us to suspect involvement of the gall-ducts or possibly disease of the capsule of Glisson. Disease in this region is often hard to detect unless infection occurs with resultant chill and fever. You do not state whether bile is present or absent in urine; the stools mentioned lead us to suppose that there is some disturbance of hepatic duct. We cannot, unfortunately make a positive diagnosis without a much more thorough knowledge of clinical conditions. The hernia should be attended to and an exploratory incision might now reveal the source of pain. We would be inclined (failing definite information from a minute physical examination) to treat this case thus: A high, copious hot salt enema every third day (using colon tube) and retention of fluid for fifteen minutes by pressure on anus. Blue mass and soda gr. 1-2, podophyllotoxin, gr. 1-2, each hour from 6 to 10 same night and sodium phosphate one dram in a glass of hot water next morning. On other days boldine, two granules, euonymin and hydrastin each one, one hour prior to food; three papayotin after eating and bilein, pancreatin and sodium sulphocarb. comp. one hour later. Atropine valerianate one every four hours during painful attacks and a cantharidal blister over seat of pain, keeping same open for at least one week. Then inunctions of ungt. potass. iodidi. Any possibility of syphilis? If you care to go over this man minutely, Doctor, and report findings we may be able to help you in a more positive manner but here is, we think, a good preliminary treatment. We should be tempted to put this patient on sodium succinate, for three months or more, noting results.—ED.

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QUERY 5168:—"Iodine Content of Calx Iodata." What amount of iodine have we in one or ten grains of calcium iodized, and, grain for grain, what is the comparative amount of iodine in calcium iodized and potassium iodide? On the same plan as we use potassium iodide how should we use calcidin? Will calcidin produce iodism?

J. L. S., West Virginia.

Calx iodata contains 15 per cent of iodine, potassium iodide about 75 per cent, hence ten grains of the former would contain 1 1-2 grains of iodine and ten grains of potassium iodide 7 1-2 grains of iodine. Our experience, however, is that the 1 1-2 grains of iodine contained in the ten grains of calx iodata is therapeutically more than equal to the 7 1-2 grains of iodine contained in an equal amount of potassium iodide, when given medicinally. With these facts before you you can readily regulate dosage, but, Doctor, do not look upon calcium iodized as simply an iodine carrier; take it as an entity and understand fully that the combination of calcium and iodine exerts a definite and unique physiological action. Simply give it to your patient in two or three-grain doses three or four times daily, preferably on an empty stomach or immediately prior to meals, and do not forget that the calcium content enables the body to secure reparative material and thus counteract the destructive action of iodine.—ED.

LIFE.—Is life an entity of individual cells, and death merely the cessation of their harmonious cooperation?

CAUSE OF BLINDNESS.—Thirty per cent of all blindness is caused by gonorrheal ophthalmia.—G. F. Heinen.

FLORIDA THIS WINTER?—Write to J. A. Crosby, editor *San Mateo Item*, for particulars—an ideal and not too costly location.

GANGRENE followed the local application of camphor to a crushed finger, but probably was due to the injury.—Leroy.

GASTROINTESTINAL HEMORRHAGES may be suspended if the ulcer, but not if from cancer, says Jaworski.—*Medical Record.*

SINGLE REMEDIES.—An excellent article on single remedies by Niederkorn is in the *Eclectic Medical Journal* for December.

EPILEPSY.—In the pre-bromide days the percentage of cures of epilepsy was greater than it is at present.—Spratling, *N. Y. S. J. M.*

IN WEIL'S DISEASE keep patient in bed till fever is gone, give intestinal antiseptics and much water.—Maggard, *Jour. Kas. Med. Soc.*

PHYSOSTIGMINE is the most powerful stimulant of non-striated muscle; of great use in gastric and intestinal atony.—Wood, *J. A. M. A.*

MALE-FERN'S ACTIVE PRINCIPLE.—Jacquet claims that the active principle of male-fern is filmarose, and finds it active in doses of six grains.

HYOSCINE, MORPHINE, AND CACTIN ANESTHESIA IN OBSTETRICS.—If the women catch onto this we will see stars pretty soon. Hypodermics of hyoscine-morphine-cactin bid fair to dislodge all other remedies for quick relief of atrocious labor pains. Safer and quicker and more enduring than chloroform for agony.

HYOSCINE ANESTHESIA.—After hyoscine-morphine-cactin anesthesia the respiration fell to six per minute but appendectomy progressed with impunity.

ZOSTER.—Ingelnans treats zoster by purgatives and intestinal antiseptics, quinine and opium, or gelsemium, for pain, and local anodynes. Poor stuff.

NIGHT OR DAY?—French therapeutists say medication by night is far more effective than by day, as absorption is more active and elimination slower.

THE POULTICE.—A hot poultice relieves pain but increases the growth of bacteria. An ice bag relieves pain and retards the growth of bacteria.—G. F. Heinen.

REAL ANTISEPSIS.—Applied antisepsis does not always by any means imply a consequent asepsis. It does, however, necessarily imply a diminished sepsis. *Jour. S. Med. Assoc.*

THE VOMITUS.—"Bile" in the vomit is often nothing but mold; then appears mostly in patches. "Blood" in the vomit is often nothing but mold; then appears mostly in fibrillar form.

WHO SHOULD PRACTICE MEDICINE?—Only men with the best mental caliber should be allowed to practice medicine. The second and third-class brains should take up some other calling.—Carstens.

SENILITY.—Lorand says senility is a form of myxedema due to atrophy of the thyroid which secretes a principle that lowers vascular tension. Four hundred and fifty years ago Bacon placed

his chief reliance for prolonging life on bloodletting and saltpeter, as we do on other vascular relaxants.—Brunton.

Appendicitis.—Do not operate in the intermediary period when there are great distention and high fever.—Brownson, *Medical Record.*

Ether and Chloroform.—Lumbard, anesthetist to Harlem Hospital, advises the use of more ether and less cholorform, and more importance to be paid the subject.—*Med. Record.*

Alcoholism and Peruna Habit.—A death certificate filed Dec. 4, by the Buffalo Hospital, gives alcoholism as the cause of death with peruna as a contributory, the man having been a habitual drinker of peruna.

Standardization?—Discussing the assay methods of the last U. S. Pharmacopeia in the *American Druggist*, Gordin quotes thirty-three examples of which he approves of four. Where is standardization then?

Silver Nitrate.—An $AgNO_3$ solution is changed by the actinic action of light. Keep in dark bottles. The slightest contamination with organic matter decomposes $AgNO_3$ solution. Use no cork or rubber stopper.

Nephritis and Boric Acid.—Giles disputes the charges of Wiley and Jones that the increased mortality from nephritis is due to boric acid as a food preservative, since the increase was greater before the use of the acid.—*Lancet.*

Delayed Chloroform Poisoning.—*The Lancet*, Nov. 17, has a valuable paper by Telford on delayed chloroform poisoning. He surmises the existence of some morbid condition to which the anesthetic is simply the last straw.

Hyoscine-Morphine-Cactin Anesthesia lasts about four hours, and is sufficient, though the patient can be aroused if desired. No vomiting, nausea, bronchial irritation or nephritis; no assistants for it, and time in plenty.

Alphozone in Typhoid.—In a report on 22 cases of typhoid fever treated by alphozone, Moss concludes that its early use shortens the course of fever, prevents tympanites, lessens the danger of hemorrhage, renders stools less fetid, prevents delirium, reduces the number of typhoid and colon bacteria in the alimentary canal, and an occasional dose, with other precautions, is prophylactic. If any intestinal antiseptic will do this, we can not deny the possibility of others doing it. Whether they do it, is a matter of evidence.

Hypodermic Needles may be made safe by passing through flame or dipping in chloroform just before using them. Hypodermic fiends never have abscesses if they boil the solution in a spoon over a match just before taking a shot.

Conjunctivitis.—Catarrhal conjunctivitis does not present the tense, rough, unyielding, tarsal conjunctiva of gonorrheal ophthalmia. The swelling of catarrhal conjunctiva is serous, that of gonorrheal ophthalmia due to cellular infiltration.

Organacidea Gastrica is relieved by the taking of alcohol. It is therefore often the cause of alcoholism. Alcohol after meals does not aid digestion, but stops the irritation of the stomach by changing the irritating acids into esters.—Heinen.

Castration vs. Lynching.—The *Missouri Medical Monthly* characterizes the *Atlanta Journal's* suggestion to substitute castration by Kuklux Klans for lynching, as an absurdity. To us it seems less of an absurdity than either rape or lynching.

Atheroma.—Rickett obtained atheroma from the use of adrenalin, tobacco or nicotine, squill and barium chloride; Fisher from digitalin, Orlovski from strophanthin and adonidin, Croftan from hypoxanthin, a constituent of meat extract. —Brunton.

The Alkaloids Satisfy.—When we get down to a few drugs, the alkaloids particularly, and then learn to use those few to bring out the utmost in them, we shall find the general practitioner's work very satisfactory work indeed.—Boyce, *Pa. Med. Jour.*

Enuresis.—Atropine, strychnine, are useful; for concentrated urine asparagin gr. 1-30—1-15 every half to one hour. Arbutin gr. 1-67 to 1-30 every half to one hour, or lithium benzoate gr. 1-6 to 1-2 in plenty water, beneficial.—Butler *Med. Herald.*

Enuresis.—Atropine should first be given in small doses, gradually increased, until the pupils are some dilated. Give strychnine in small doses, gr. 1-400 to 1-134 of the arsenate several times

daily. If due to atony, ergotin gr. 1-6 or cantharidin, gr. 1-5000, three and more times daily are often useful.—Butler, *Med. Herald.*

"Colds," Asthma and "Specs."—One of my friends gets a "cold" whenever the frames of his glasses for compound astigmatism are bent. I believe to have proven to my own satisfaction the existence of an occasional ocular origin of asthma. —Leo Wolf, *Medical Record.*

True Eclecticism.—The bane of the medical profession for centuries has been its bickerings and its following authorities. Only since every individual has used every remedy of whatever character and made use of every science, has the practice of medicine become more scientific and perfect.—Carstens.

Antithyroidin in Graves' Disease.—Elsner contributes to *Merck's Archives* strong testimony in favor of antithyroidin in the treatment of exopthalmic goiter. "Unless we mistake," he says, "the operative removal of the parathyroids is associated with a train of symptoms resembling in all respects Graves' disease."—Elsner.

Cholera Infantum.—If restricted to one line of treatment I should choose atropine to control the vomiting, zinc sulphocarbolate as the antiseptic, bismuth subcarbonate as the healer of the inflamed mucous surface, and strychnine arsenate as the reconstructive or supporting drug.—M. B. Tuller, *Med. Brief.*

A Sublimate Antitoxin.—Mariani says we may by vaccinating with sublimate produce a serum, antitoxic, bacteriolytic and agglutinative, acting on many diverse forms of germs and increasing the mononuclear leucocytes in the blood. Large doses lessen, small ones increase, the defensive proteids. Adult dose 1 to 5 mgms daily.

Is the Lie Justified?—You will have many a case that will force you to lie, for the sake of family peace. This is righteously justified, for besides aborting a divorce or a scandal, you may be conserving the integrity of your cuticle. However things may go, and whatever else you may be, be a gentleman.—W. C. Cooper, *Ecl. Med. Journal.*

The Symptoms of Acute Cholecystitis are those of biliary colic with gallbladder enlarged, tender, maybe palpable. The first symptom is pain, sudden in its onset, increasing rapidly, paroxysmal or continuous. Pain is mostly over liver, especially its lower border; may radiate widely and mimic appendicitis.—Hotchkiss, *Med. Record.*

Enuresis.—Tone up; the best tonics perhaps being the arsenates of quinine, strychnine and iron in small doses. Prevent flatulence; menthol gr. 1-12 with soda sulphocarbolate gr. 2 will usually allay it. For nocturnal attacks give solanine, gr. 1-67 upwards till the patient feels irritation of mouth or throat.—Butler, *Med. Herald.*

Scarlatinal Nephritis.—Constipation increases the severity of scarlatinal nephritis. The main causes of scarlatinal nephritis are: Frequent change of room, temperature, draughts, and careless bathing. The free use of water in scarlatina is the best preventive of nephritis. It dilutes the toxins and decreases the acidity of the urine, and stimulates catharsis and diaphoresis.—Heinen.

Aborting Pneumonia.—I prefer to cut short pneumonia, save my patients, and let Osler and his followers have their little fling. Pneumonia can be aborted by many different treatments, provided they are begun early and followed out thoroughly. In aborting pneumonia, the method I have most used and know to be effective, is the so-called "alkaloidal" one.—French, *Merck's Archives.*

Laxative and Peristalsis.—Pfaff found that croton oil, aloes and podophyllin markedly increased peristalsis of the whole gastrointestinal tract, including the stomach. Scammony, gamboge, jalap, euonymin and cascara very slightly increase gastric peristalsis, markedly that of the large and the small intestines. Sodium sulphate increases peristalsis and causes watery discharges; sodium phosphate less and sodium chloride not at all.—Pfaff, *J. A. M. A.*

Hyoscine, Morphine and Cactin.—The reports from the use of hyoscine, morphine and cactin in surgical anesthesia multiply in number, and indicate a reception of the method which approaches enthusiasm. Numerous reports are also coming in of its remarkable efficacy in obstetrics, rendering the labor painless and yet not destroying the consciousness of the patient or being followed by that tendency to hemorrhage which many persons believe to follow the use of chloroform. We are now commencing also to receive very valuable reports as to the use of this compound tablet for the relief of pain. One unusually close

observer, Dr. Henry of Minneapolis, tells us that a single tablet, hypodermically given, sufficed to relieve an intense gallstone colic—in fact, the reports indicate a marked superiority of this combination over the old morphine and atropine.

Asthma.—In bronchial asthma the patient gets up and goes toward a chair or window. He may seize the back of a chair with both hands, his shoulders raised and his body stooped forward. In cardiac asthma the patient sinks into a chair or sits on the side of his bed, immovable, supporting himself with his hands on the seat of the chair or bed beside him. In uremic asthma the patient sinks into a chair or sits on the side of his bed, but tosses his arms and legs about.—Heinen.

Scheme to Exploit Bernardo Homes.—The Barnardo homes for children have been left a fortune in shares of the "bile beans" and "pink pills" companies on condition that they form an English company to push these nostrums. Resist the devil, friends, and you will not lose in the end. If the Barnardo trustees decline to prostitute that noble enterprise by using it to advertise "bile beans" and "pink pills" they should not be allowed to lose but rather to be supported that again it may be shown that honesty is the best policy.

Cancer of the Rectum gives a fetid, but not fecal odor to the underclothing. If a person over middle-life has during the day several small watery discharges with little hard lumps of feces in it, examine for cancer of the rectum, especially if the condition is not changed by diet or medicine. In the false diarrhea of rectal cancer the intestines are not empty, but contain lumps of feces, especially in the descending colon and sigmoid flexure. In this diarrhea there is a large increase in the amount of indican in the urine; in simple chronic diarrhea not. Sugar, acid, salt, fat and oil, should predominate in the diet for rectal cancer.—Heinen.

New Schools and New Methods.—The *Physio-Medical Record* for August, shows that R. A. Bryson read before the Indiana association of that school a paper introducing the subject of alkaloidal medication. The physio-medical school is, we believe, the direct decendant of Samuel Thomson; and like the other separatist sects has devoted its attention specially to the therapeutic department of professional work. It is not surprising, therefore, that its adherents should show special interest in the active principles. In fact, the willingness of these schools to investigate the merits of new methods, tempts one to long for their return to the fold, that they might leaven the regular mass with a similar spirit.

Summer Complaint.—L. D. Dickerson in the *Missouri Medical Monthly* says that in summer complaint intestinal antiseptics and antiferments are of doubtful utility; but clears up the mystery by adding that of these bismuth is his choice. If that is his best we scarcely wonder.

Hemorrhages of New Born.—In *The Brooklyn Medical Journal* Goodrich discusses the hemorrhages of the new born. For gastrointestinal hemorrhages he advises bismuth subgallate; as local hemostatics he prefers silver nitrate and chromic acid; as general hemostatics he mentions ergot, suprarenal extracts, calcium chloride and iron, considering also the evidence favoring gelatin well worth weighing. His remarks on drug treatment, however, are exceedingly unsatisfactory, and we would suggest that a study of modern remedies in modern shape would have rendered his paper of much more practical value. The perusal of such papers as this leads us to realize again how much of our work has not penetrated to the consciousness of many in the profession.

The Small, Repeated Dose.—In *The Texas Courier-Record of Medicine*, for October, are two suggestive papers upon dosage—by Drs. Landers and Abbott. Each advocates the method of small frequently repeated doses continued until the desired effect has been secured. Landers quotes a case which required three weeks to completely unload the gastrointestinal canal. Of course all sorts of diagnose had been made, principally malaria and malignant typhoid fever. After cleansing the tract the patient was well within 48 hours. Dr. Landers asks: "Does the competent management of malaria mean nothing more than ordering quinine? Does the treatment of syphilis mean prescribing mercury once in a while?" His plea is for the same precise technic in the use of drugs which the surgeon finds so valuable in his work. Dr. Abbott takes as his text a report of iodism from calx iodata three times a day. This ancient and time-dishonored level dosage has done much to destroy confidence in drugs. Salisbury's warning as to the effect of drugs swallowed largely intercepted by the liver, shows how extraordinarily crude and senseless are the methods of drug administration.

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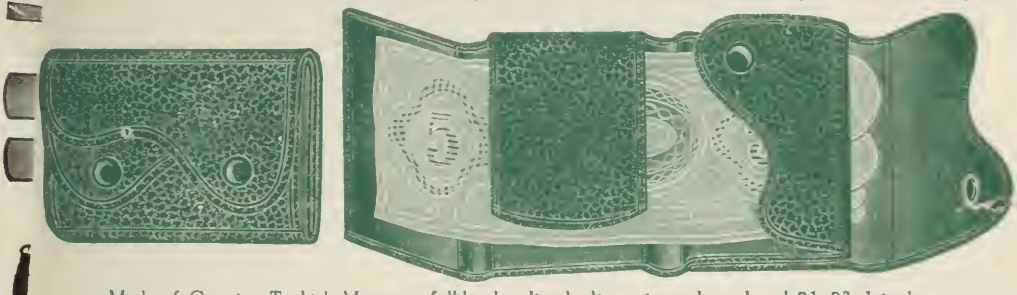

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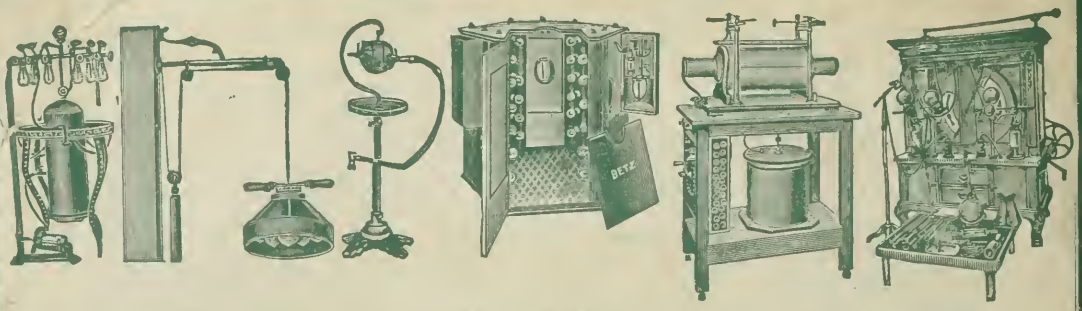

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